The Australasian Journal of Psychology and Philosophy.

VOL. III. SEPTEMBER, 1925. No. 3.

DOES THE IDEAL REALLY EXIST ?*

By W. R. Boyce Gibson, M.A., D.Sc., Professor of Philosophy
University of Melbourne.

THE term "Idealism," as Prof. Hœrnlé has recently reminded us, refers us back to the two underlying conceptions "Ideal" and "Idea." Verbally "idea" is primitive, and "ideal" from the adjective "idealis," is a late Latin word. But we cannot infer from this that the notion of the "Ideal" is less primitive than that of the "Idea." Indeed the contrary is true. Not the least significant of the discoveries of Pythagoras, if tradition can be trusted, was his insight that the philosopher was not the wise man but the seeker after wisdom, and philosophy, as its name now indicates, not so much wisdom as the love of it. The Ideal, as the object or end of aspiration is on this view more fundamental than the Idea as the object or subject-matter of cognition: and it is in this sense, I believe, that Plato himself conceived the relation of Idea to Ideal. The primacy of the Ideal is, I should say, despite all ambiguities of expression, a characteristically Platonic doctrine.

In the Dialogues we have a threefold presentation of the Ideal in its relation to philosophy: of Truth, in the first instance, as the fount of inspiration in the philosopher's own life; secondly, of Beauty as the nourisher of Truth itself, the source of science as well as the goal of love; and finally of the Good as the ultimate spring of knowledge, and more beautiful even than Beauty. Let us briefly consider these three presentations.

As illustrating the influence of Truth on the life of a philosopher, we turn to the picture of Socrates as framed in the Apology. There he figures as the fearless and devoted seeker after Truth, not only cherishing his own soul as the divine organ through which alone Truth is seen and grasped, but driven by an impulse which he cannot resist to expose error and fraud in the souls of his fellowmen whenever he detects them. "And so I go about the world, obedient to the god, and search and make enquiry into the wisdom of any one, whether citizen or stranger, who appears to be wise; and if he is not wise, then in vindication of the oracle I show him that he is not wise; and my occupation quite absorbs me, and I have no time to give either to any public matter of interest or to any concern of my own, but I am in utter poverty by reason of my devotion to the god." (Apology, 23, Jowett's Trans.) What stands out most convincingly in the defence-speech of Socrates is the fixity of direction and conviction which his life has won from his loyalty to an Ideal. He has had a vision of Wisdom which makes him set up the truth above all the idols of the forum and the den, and in this quest after the true wisdom he will take the indicated way, indifferent whether it leads him through the valley of Death or not. The way of the philosopher he believes to be the one true way for every man, the only way along which the self can be found and the soul saved. And we see that in his own case it is the Truth and that alone which makes him steady in all his loyalties, enabling him through his whole defence and after it to rise superior to his accusers and judges alike, and be most imperturbably himself at a time when all the shows of things present him as a doomed prisoner before the bar. This great directing unifying power within his life, this ideal of Practical Wisdom, is the authentic source of all that is fixed and unfaltering in his attitude and behaviour. The condemned Socrates might still have saved his life not only by the unthinkable course of giving up philosophy, but by leaving Athens as an exile. Why did he not do so? We are told the real cause for this in the Phaedo: "The Athenians thought it right to condemn me," says Socrates, and "I have thought it right and just to sit here and to submit to whatever sentence they may think fit to impose. For, by the dog of Egypt, I think that these muscles and bones would long ago have been in Megara or Boeotia, prompted by their opinion of what is best, if I had not thought it better and more honourable to submit to whatever penalty the State inflicts, rather than escape by flight." What is right, what is just, better and more honourable, these to Socrates were the real causes, the primary motives, incomparably more potent than the instinct of self-preservation. One is reminded of the fine dictum of Kant: "If justice perishes, it is no longer worth while for man to live upon the earth."

---

*Presidential Address delivered at the Third Annual General Meeting of the Australasian Association of Psychology and Philosophy, held at Sydney University, May 21-23, 1925.

We turn now from the Ideal of Truth to that of Beauty and to Plato's discussion of it in the Symposium. In this dialogue the Intellectual Love of a Beauty that is unchanging and everlasting is the main theme of the Banqueters. The Idea of Beauty is depicted as a final cause and disciplining power drawing the soul forward to the love of beautiful forms, and from the beauty of the outward form to the beauty of the mind, leading it then to see and love the beauty of institutions and laws, and then of science also until "at last the vision is revealed to it of a single science which is the science of beauty everywhere." "And the true order of going, or being led by another, to the things of love, is to begin from the beauties of earth and mount upwards for the sake of that other beauty, using these as steps only, and from one going on to two, and from two to all fair forms, and from fair forms to fair practices, and from fair practices to fair notions, until from fair notions he arrives at the notion of absolute beauty, and at last knows what the essence of beauty is." (Symposium, 211, Jowett's Tr.) The Ideal Value here is Beauty, Beauty intrinsic, objective, and discernible only to the intellect. This Beauty is the ideal which draws out the aspiration of its lovers working within their minds as a final cause, or motive, which reveals its true nature only at the end. It is above all a beauty of order and symmetry, of the laws and principles of number, and it may not be amiss to compare with this Platonic conviction concerning the nature of Beauty the similar witness of a great mathematician of our own time, possibly the greatest the last century produced.

Henri Poincaré held that mathematical genius had its roots in a certain special sensibility of an aesthetic kind. Truth alone is beautiful, we read ("Foundations of Science," tr. Halsted, p. 205), and we should seek the true solely for its beauty" (id. p. 368). It is Beauty, Intellectual Beauty, which makes intelligence sure and strong (id. p. 368). "The scientist does not study nature because it is useful; he studies it because he delights in it, and he delights in it because it is beautiful. If nature were not beautiful, it would not be worth knowing, and if nature were not worth knowing, life would not be worth living. Of course I do not here speak of that beauty which strikes the senses, the beauty of qualities and appearances, not that I undervalue such beauty, far from it, but it has nothing to do with science. I mean that profounder beauty which comes from the harmonious order of the parts and which a pure intelligence can grasp. This it is which gives body, a structure so to speak, to the iridescent appearances which flatter our senses, and without this support the beauty of these fugitive dreams would be only imperfect, because it would be vague and always fleeting. On the contrary, intellectual beauty is sufficient unto itself, and it is for its sake more perhaps than for the future good of humanity, that the scientist devotes himself to long and difficult labours." (id. pp. 366-367).

We pass on now to those vital pages in the Republic in which the nature of the Ultimate Ideal of all philosophical aspiration is declared to be something more profound even than Truth itself, and more beautiful than Beauty, namely the Good. The Idea of the Good is presented in the Republic as the supreme reality which the rulers of the Ideal State must contemplate continually, that their rule may be just and their judgment right, and the earnestness with which the Ideal is here set before us as the supreme reality is as impressive as is the sincerity of the genuine Truth-seeker which wins our admiration in the Apology. We may safely say that there is no tenet more characteristic of the Platonic outlook than his view that the Universe is held together in all its parts by the power of the Good. We have the first explicit declaration of this doctrine in the Phaedo. Socrates had come across the view of Anaxagoras that it is Mind which orders and is the cause of all things, and expected to be informed how everything was ordered by Mind for the best. Instead of this he was told how things held mechanically together: the conditions of possible happenings were laid bare in an orderly way and presented as the causes through which mind acted, but nothing was said of the real cause, "of the binding force of good which really binds and holds things together." (Phaedo, 99, tr. Church). Plato's latest dialogue, the Timaeus, is a sustained attempt to remedy that defect and to show that the Universe is intelligible just in proportion as it is the best possible in every detail.

Now in the Republic, where trained and prolonged insight into the nature of the Good is held to be an essential preparation for just rule in the Ideal State, an attempt is made to define this nature and specify its function. We are told that the good is not existence, but far exceeds existence in dignity and power (vi. 509), that it is the universal author of all things beautiful and right and, in particular, is the immediate source of reason and truth in the intellectual world. "That which imparts truth to the known and the power of knowing to the knower," says the Platonic Socrates, "is what I would have you term the idea of the Good." (vi. 508. tr. Jowett). Now this deliberate definition of the Idea of the Good enshrined at the very heart and centre of Plato's greatest work, and assigning to the Ultimate Idea a most impressive nature and function, brings to a head the difficult problem of the relation of Ideal to Idea in the thought of Plato.

It is Aristotle who tells us (Metaphysics M. 1078 b. 9) that the need for the Ideal Theory arose in the first instance from the recognition that there could be no knowledge of sensory things, since things of sense were in constant flux. "If then there were still possible science and knowledge of anything, there needed to be assumed permanent existences distinct from the sensible": a realm of Ideas must be set over against the world of sense. Thus it is as the indispensable object of knowledge that the Idea first makes its appearance in the history of philosophy. On this essential point the Platonic Dialogues support the testimony of Aristotle. The true objects of scientific knowledge, according to the Platonic Socrates, are certain real essences which Thought alone can know, and these he called *Ideas.*

If we now revert to the passage in the *Republic* where Plato defines for us the Idea of the Good, to the passage where he identifies it with "that which imparts truth to the known and the power of knowing to the knower," it is indeed hard to see how an entity so defined could fulfil specifically the original function for which an *Eidos* was intended, namely, to provide a legitimate object for knowledge. That which makes knowledge possible by providing an intelligible object as well as an intelligent knower might well be the Cause of all that is rational in the world, the Source of rationality and of knowledge itself, but it could not be simply identified with the knowable object. And if we turn to other passages in which the Ideas are discussed, we can hardly help remarking that the Ideas of the Good, of Beauty, of Truth, of the One, normally referred to in a class apart, as an order of Ideas distinct from the ideas of things organic or inorganic and even from the mathematical or ideal numbers, are not really Ideas at all in the original sense of that term. They are not objects of knowledge, but Sources whence those objects flow. It is true that they are referred to as Ideas,—in the Phaedo, for instance, we read of "Beauty, good and the other ideas" (76), but they occupy a manifest place of honour. We have only to consider the famous speech of Diotima in the Symposium and the reflections of Socrates at the close of the sixth book of the Republic to persuade ourselves of this. And if we turn to the rough classification of Ideas in the first part of the Parmenides, it is significant that whereas the Young Socrates *thinks* there is a separate idea of likeness and of the One and the Many, and is *undecided* whether to accept a separately existent idea of men, fire or water, and is *decided,* tho' not without some qualms, that there can be no ideas of hair, or mud or dirt or of anything vile and paltry, he is *quite sure* that he would make absolute ideas of the just and the beautiful and of all that class. These are in fact the absolute ideas par excellence: they at any rate do really exist and the Idea of the Good which has such affinity with the Idea of the Beautiful and is the source of Science and Truth is the fountainhead of all values as well as of all existence.

We are thus led to believe that though Plato does not verbally distinguish between Idea and Ideal, he is very much alive to their real difference. The Good, that which transcends knowledge as its very source, the goal of its aspiration and in this sense its Ideal, cannot be the mere object of knowledge, and yet Plato calls it an Idea. It is therefore not surprising that there should be uncertainty among the experts as to whether the Idea of the Good is or is not to be identified with the Perfect Soul which Plato calls God.

Dr. Inge puts one viewpoint very simply when he remarks (Philosophy of Plotinus II., 126) that "the identification is impossible, because for Plato God is a Soul, not a Form. The Form of the Good is rather the pattern which the Creator copies in making the world." This would, I think, be conclusive if the Idea of the Good were really no more than an Idea or Form. But we have seen that for Plato it is not a Form but a Source of Forms. A Form is essentially a real existent, whereas the Idea of the Good subsists beyond existence, beyond any being that can be intelligible to us. There might well be a sense in which this transcendent Source of Ideas was itself a Soul. Prof. Webb again, whilst himself convinced that "the God whom we worship must be the Highest, must be what Plato called the Idea of the Good" holds it probable "that Plato did not identify God with the Form or Idea of the Good, but rather regarded him as a Soul, informed by that Idea" (God and Personality, p. 174).

Professor Adam, on the other hand (The Religious Teachers of Greece, Lect. xxi-xxii) makes out an excellent case for the view that the Idea of Good stands for Plato's philosophical conception of God. In the Republic the young are taught as the basic religious doctrine that God is good, and as this preliminary education is meant to pave the way for the later one which is to have its ultimate root in the doctrine of the Idea of the Good, "it would seem that the Idea of Good is the philosophical fulfilment of the doctrine of the divine goodness already imparted at an earlier stage of intellectual development." Moreover, if we compare the respective positions assigned to the Idea of the Good in the Republic and to the Creator in the Timaeus we see that "the same characterisics and activities are assigned to both." Indeed, we read, "the whole of the Timaeus is only a kind of elucidation of one of the functions which the Republic assigns to the Supreme Idea, that of the efficient or creative Cause." If we accept this view as developed by Prof. Adam, we must admit that in certain cases at any rate, what Plato calls an "Idea" is really a Soul, and that therefore the Ideal which is the goal of all aspiration after goodness—what Plato calls the Idea of the Good—is nothing less than a Perfect Soul.

Now I do not wish to suggest that it was ever Plato's intention to identify Soul and Idea. But I would venture the view that in Plato's own conception of the Idea the Ideal occupies a leading position, and that in so far as there is a tendency to identify Idea and Soul, it is due to this inclusion under one name of the Ideal and the Idea. Plato's broad view of the term "Reason" is no doubt partly responsible for the ambiguity. Reason, with Plato, loves as well as knows, aspires as well as argues, is in fact "a twofold thing."* Hence the Ideal that is loved and the Idea that is known fall naturally together as in one aspect or the other the proper object of Reason.

There is a well-known passage in the Sophist where the Eleatic Stranger, having agreed with Theaetetus that the soul knows and that being or essence is known, endeavours to show that what is known, being acted upon by knowledge, must be in motion, and not only move but also live and think. "Can we ever be made to believe that motion and life and soul and mind are not present with perfect being? Can we imagine that being is devoid of life and mind, and exists in awful unmeaningness, an everlasting fixture?" And Theaetetus replies: "That would be a dreadful thing to admit, Stranger." (Sophist, 249. tr. Jowett). In this passage Being or Essence, namely that which is known, is regarded as being of the nature of soul and mind. Briefly, so it would appear, the real existences which are the objects of knowledge are declared to be themselves souls. But we should remember that underlying this argument of the Eleatic Stranger there is his "notion" as he calls it, that anything which possesses any sort of power has real existence, and that the definition of being is simply power. Now it is true that the notion of power is directly connected in Plato's mind with the nature of soul. The soul is essentially and in idea the self-mover, possessing the intrinsic power not only to move itself but to move all else besides, and in particular to control and direct the body. Power, in fact, belongs essentially to the soul, for it is the soul that moves things and it is the soul that knows. And if we turn once again to the Symposium and Republic and to the account there given of the Ideas of Beauty and of Good, we see at once that these Supreme Ideas are pictured not only as real or super-real existences but as seats of power. They possess notably the unique power of drawing the soul towards reality. The Idea of Beauty is explicitly declared to be the final cause of all the passionate search which preceded it, directing it from one rung in the ladder of ascent to the next, and revealing itself in its full and sudden splendour only at the end; and, *a fortiori,* this holds true of the good for as the Platonic Socrates surmises in Bk. vi. of the Republic, none will know the just and the beautiful satisfactorily till he knows the good. Moreover, apart from the power of these supreme Ideas in their function as final causes, the Idea of the Good in particular, as the Sun of the Ideal World and the source of that light of reason which gives insight to the mind's eye and intelligibility to its objects, is expressly declared to be a power. "This power which supplies the objects of real knowledge with the truth that is in them and which renders to him who knows them the faculty of knowing them, you must consider to be the essential Form of Good": the Good, far from being identical with real existence, actually transcends it in dignity and power. (Rep. 508, tr. Davies and Vaughan.)

---

*Barker, Greek Political Theory, I. 268.

Plato's answer to the question "Does the Ideal really exist?" would then seem to be somewhat as follows:—"The Ideal Good is the very source of all that deserves to be referred to as a real existent. As such it exists in a transcendent and superlative sense, but a sense very hard to define, so hard that we get our firmest grasp of it through holding its image, the godlike Sun, before our minds, and above all the mediating light that illumines the eye and reveals the object. And its function is not only that of revelation but of creation and direction also. It is not lightly to be identified either with the Soul or with the Idea. As creator it is self-moving like the Soul, but it lacks the obvious selfhood which would enable the soul to greet it as of its own kith and kin. Again, as essential to the very possibility of knowledge it resembles the Idea as object, but in a more eminent way, for by its transcendence of both subject and object alike it first brings both the essential opposites in knowledge into working relationship with each other." This, I think, is how Plato would conceive the real existence of the Good. And yet, though he oscillates between this affinity of the Ideal to Soul on the one hand, and to Idea on the other, it would be misleading to suppose that with his bias towards transcendence and objectivity, the Ideal could mean to him precisely what it means to corresponding modern Thought. The modern conception of Reality connects it far more closely with the requirements of experienceability and of indubitability than is the case with Plato. And though transcendence of relativity appears as essential to our conception of the real as it did to Plato himself, the immanence of the real in the world of change and of individual experience is a requirement of the modern outlook which would not have appealed to Plato. Indeed the Aristotelian revision of Platonic doctrine consisted essentially, as we know, in transferring the emphasis from transcendence to immanence.

To win the standpoint from which we can best face the problem of a real Ideal in conformity with a modern outlook we must get back to experience, search out that element in it which by possessing indubitable reality will give us a sure basis for uniting real existence not only with knowledge but with certitude; and we may then consider whether what we experience as the Ideal is vitally one, structurally and functionally, with what is most certainly real to us, or is on the contrary a mere fictive concept whose sole good office it is to promote and foster useful illusions.

It is remarkable that Plato who attaches so much importance to the Self and to the soul's personal immortality, should have said so little about the problem of Self-Knowledge. He does not analyse the complexities involved in the notion of an Idea of the Soul, and he does not appear even to have admitted the legitimacy of this Idea. The Charmides, it is true, brings up the topic of self-knowledge, but rather as the knowledge of knowledge than as the knowledge of self. In one dialogue of very doubtful authenticity, the Alcibiades I, the problem of self-knowledge is indeed quite definitely broached. After an allusion to the text inscribed on the temple at Delphi, *Know Thyself,* Socrates proposes to Alcibiades that they should see in what way the self-existent can be discovered by us. It is agreed that the self is essentially soul and the soul essentially reason, and the reason that part of the soul which resembles the divine. To know ourselves we must look at Mind, the divine part of our soul, "and at the whole class of things divine." But the treatment despite its interest and suggestiveness lacks Plato's usual profundity and shows no inkling of the real difficulties involved in the notion of self-knowledge, nor of the deep metaphysical bearing of the problem.

With Descartes and the revolutionary insight which left the consciousness of self central for philosophy, we reach the modern standpoint from which the query which furnishes the title of this address can best be considered. There is much in the Platonic outlook which converged towards this insight. As real existences both Souls and Ideals should be objects of knowledge. But in what sense is this possible? The self-moving soul is essentially a subject of knowledge, not an object, and again Ideals are objects of aspiration rather than of knowledge. Thus a conception of knowledge had to be developed which would set it in its proper relation both to the knower and to its intellectual aspiration. To this end the important concepts of "consciousness" and "experience" needed to be framed and immediate experience clearly distinguished from the knowledge connected with it. Briefly it was necessary that the subjective should be more clearly distinguished from the objective, and more particularly, so far as our problem is concerned, that belief should be distinguished from knowledge, not as an inferior kind of knowledge, as with Plato, but as a sense of experience of reality as opposed to an intellectual grasp of it as true. It was the great merit of Descartes that with these distinctions at his service, he was able to see where the point precisely lay at which subjective certainty and objective knowledge could harmoniously meet. Following on the path of the sceptics, he was able to show that the alleged real existence of all objects of knowledge could be doubted, and prove illusory, but that the doubter's doubt at any rate was indubitable, however much he doubted. And the insight was crystallized in the famous saying "Dubito," or more generally, "Cogito, ergo sum."

It is an interesting paradox that we must needs believe our own doubt, and not only our doubt but all that our doubt implies for its subsistence, more particularly that which gives the act of doubting its unity. The doubt, if it has any philosophical relevance, is reasoned and it is mine, for all doubts are personally owned. Hence the doubter cannot doubt his own self-existence as a doubter. Thus a limit is assigned to scepticism and an *inconcussum,* an unshakeable stronghold, provided for a system of philosophy that will harmonize the subjective requirements of conviction with the objective requirements of knowledge.

I may restate this conclusion in other words:—I may say, in Cartesian phraseology, that I have a clear and distinct perception and in this sense an intellectual intuition that the conviction I possess of existing as a thinking being is indubitable and that no doubt of mine can trouble it. Even if I were prepared to grant that every judgment of mine about the universe was false in every detail, I should still have to admit as indubitable that I, the maintainer of all these false judgments, existed as a maintainer of judgments of some sort about the universe. This then is the pin-point rock. No science or philosophy which aspires to be intelligible and to deal with an intelligible world can legitimately doubt that in some genuine sense I am conscious of myself as a rational being.

It is important however that we should not put more into this starting-point than it will logically hold. Descartes' intellectual intuition may give me clear and distinct logical assurance that "my existence as a rational being" is indubitable, as indubitable as the sceptic's own doubting. But it cannot convey this assurance intelligibly to me unless through my own immediate experience, I have direct experiential witness of my own rational existence. This experiential intuition cannot give me any logical guarantee. It cannot enable me to decide whether my self-consciousness is an appearance only or a reality. But, apart from it, the intellectual and logical insight that my own rational existence is indubitable could mean nothing to me. Descartes' intellectual intuition therefore presupposes experiential self-intuition, and the two should neither be confused nor separated. And there is a further point of fundamental importance. The self-consciousness, more strictly the "myself-consciousness" which Descartes' Intellectual Intuition guarantees as a sure starting-point for knowledge is not itself an item, however privileged and fundamental, in a system of knowledge. It may be the Source of all true knowledge of Reality, it is not a first principle or constitutive axiom within this Knowledge system, and, in that capacity, final, absolute, and unimpeachable. All knowledge is a system of interpretations, and no interpretation can ever claim to have fathomed the full meaning or said the last word. In some sense or other my rational self-consciousness indubitably exists. But in what precise sense it remains for philosophy to interpret as best it can. And no interpretation can ever claim finality. It is as possible and as desirable to improve on one's knowledge of self as of everything else. Let us cleave then to our starting-point as tenaciously as we do to our very reason, and yet show all reasonable humility in the further and quite different matter of interpretation.

Bearing these distinctions in mind, let us return to what we have referred to already as "experiential intuition," to the immediate experience we have of our own existence, in a word, to our own self-consciousness. Self-consciousness we take to be distinct from self-knowledge, to be in fact no more than a form of observation of a unique and intimate kind. It is the observation not of an object, but of a subject. Were it the observation of an object, its indubitable genuineness could not have been shown to the sceptic. For all objects may be illusory, whereas the subject to which illusory objects are presented is as real as the subject to which non-illusory objects are presented. To have immediate experience of myself is therefore to have direct acquaintance with myself as the subject of my own experiences. Whether it is at all possible to experience oneself as an object is a further question, but it can be shown that any such objective experience of self must pre-suppose as more fundamental the direct experience of self as subject. The very fact that we grasped it as an object would mean that we grasped it as an object for a subject. But how can we be aware of there being such a thing as a subject unless we have immediate experience of ourself as a subject? Thus we are driven back to the experience of self as subject as at any rate the basic form of self-intuition or self-consciousness. McTaggart, in his article on Personality in the Encyclopaedia of Religion and Ethics, proves very effectively in my opinion, that if "I" am to be known at all, it must be by awareness and if not by awareness no proposition in which the term "I" occurs can logically be asserted. His discussion serves to show that the only way of approach open to self-knowledge is that of immediate experience. It is true that he still maintains that the self can know itself only by becoming its own object, that there can be no direct awareness of subject as subject, a conviction which he shares with James Ward. Ward discusses the matter in the 15th Chapter of his "Psychological Principles" (pp. 380-381). He quotes from Kant showing that Kant fully appreciated the crucial difficulty involved. "The whole difficulty," says Kant, "lies in this, how a subject can internally intuit itself." Ward's answer is that it cannot do this directly but only through a reflexive process. The I (as subject) is known reflectively in the me (as object), and this "because the Me has been synthetically constructed by it." The I has built up the Me and left its mark upon its work, so that the Me is penetrated by the nature of the I, and the I can be known reflexively through the Me. Here again there is the failure or the refusal to recognize that the self can be known directly as a subjective activity, and that this must needs be the fundamental form in which it is known. For, grant that it can be known reflexively in the way alleged by Ward, still such knowledge would presuppose the direct subject-intuition. Otherwise how could the I be recognised in its mirror, the Me? How could we have any cognizance of its fundamental function as a subject?

We conclude then that we are directly aware of our own mental activities, and not merely derivatively and reflexively. The analogy of vision is here misleading. The physical eye, it is true, cannot see itself. But it is precisely the capacity to see itself in its own native functioning that differentiates most profoundly the mental eye from the bodily.

If now we turn to our leading query concerning real existence, we can see, I think, that we are justified in claiming real existence for ourselves on the following ground:—In the first place, I cannot intelligibly doubt my *actual* existence as a rational being. Reason combined with self-consciousness assures me that I have a logical right to believe in myself as the unifying subject of my experiences. But reality is not only a question of actual existence available to self-intuition. Self-knowledge must supplement self-intuition, and it is only through first a psychology and then a metaphysics of self-experience that we can win stable insight into the nature of the self's real existence, in that sense of the word "real" which implies value and is sharply distinguishable from mere actual existence.

To develop all this adequately would require a bulky chapter in First Philisophy, including a vindication of the thesis that self-intuition or self-consciousness—implicit and explicit—is an intrinsic quality of self-existence, and that self-consciousness is by its very nature the consciousness of its own personal world. I will content myself here with indicating two assumptions or postulates which, in my opinion, a philosophy of self-knowledge which aims at discovering the true nature of real existence must accept as fundamental.

The first assumption concerns the nature of development, in particular of self-development. When I say that something develops or grows, I mean that it moves not by accident but by inner necessity or obligation from rudimentary beginnings to a phase of maturity, and I consider that we cannot justly explain the later stages in terms of the earlier but are obliged to regard earlier and later stages alike as successive phases through which one and the same identical individuality passes on its way to maturity, the later stages enabling us to interpret the earlier ones that lead up to them. This is what Caird has referred to as levelling up, explaining the earlier in terms of the later, or—in terms of value,—explaining the lower in terms of the higher. In so far as an actually existent being develops, his true reality must be looked for as something intimately connected with the aim and end towards which the development is moving. The real existence of a being that has needs to be satisfied through growth lies in the process through which those deeds are progressively satisfied and the intrinsic ends of its nature progressively attained. My own real existence as a person would, on these lines, lie in the course of experience through which the intrinsic ends of my personal nature were progressively realised. It is as a subject of aspiration, seeking to satisfy the fundamental needs of my deepest nature, and thereby to find or recover my true personal unity that I can justly, i.e. with metaphysical propriety claim real existence.

This reference to true personal unity may need a word of explanation. It implies a contrast between two unifying functions of the self, the one connected with the broader term "individuality," the other with that of "personality." In so far as I am an individual, my world, as a network of possible experiences, is held together as one world not in virtue of any rational principle of connection but solely through the singleness of my individuality. Every organism wins the raw material for its own purposively directed life in the form of immediate experiences of a primitive kind. Indeed, paradoxically enough, it can be affected by its environment only in so far as it stamps on that environment the impress of its own individuality and transforms its stimuli into possible experiences. Yet the function of individuality is not only to integrate the resources of the universe in the form of possible experiences but to develop its own nature through some primitive form of aspiration after good. As Plato and Aristotle both affirm, every living thing makes for the good, pursues it and seeks to make it its own. In so doing it reveals a new form of unification dependent not only on its own nature as an individuality, but also and primarily on the nature of the good itself. Unity of individuality is a formal requirement shared in the same way by all organisms in virtue of their individuality. The unity which the organism wins through its aspiration after what it deems to be its natural good is always and essentially a unity in the making, a unity of growing coherence, an ideal unity which is the goal of the organism's development and not a mere formal unity whose most important function indeed is to render possible the attainment of ideal unity.

I do not see how to make the notion of individual unity intelligible to myself apart from this distinction between its formal and ideal aspects. When Individuality becomes explicitly conscious of its world of possible experiences and of the self to be nourished and perfected out of such experiences and developed in the direction marked out by some idea of the good, it takes on a strictly personal character. Personality, I take it, is essentially a product of individual initiative and ideal guidance; it is what our individuality develops into through its pursuit of the good, and it presupposes as the indispensable basis for its growth an innate capacity to unify the universe in the form of experiences, what we have called the formal unity of individuality.

Our first assumption then is a conception of development which leads to the conclusion that we really exist in proportion as we shape ourselves freely into personalities under ideal guidance.

The second assumption concerns the matter of personal immortality. I can do no more than point to the necessity for making it. Unless there is that in our personal nature that is indestructible, I should not be justified in accepting my own existence as the indubitable starting point of a metaphysic. If the sceptic sees that he must perforce admit his own existence as a doubter but takes refuge in the further reflection that what he is thus bound to admit is no more than that he exists as a thinker at the moment of his doubting, very little will have been won. He would be obliged to admit the indubitability of a certain transient form of existence which on passing away would carry with it the whole ground for that indubitability. Philosophy would not have discovered the pin-point rock it was in search of, but only a piece of shifting sandstone, and the whole basis of knowledge would be left insecure. Now it is only on the security of my own self-consciousness that the argument for the real existence of the Ideal can be built up. Hence the possibility of adequately vindicating the thesis of this paper depends, in my opinion, on the ability to justify personal immortality, i.e., persistent personal identity through every change, including that of death itself. And this is the second assumption that I wished to indicate.

Let us turn now to the problem of the Ideal itself and to the query concerning its real existence. The objection that the Ideal is a mere product of subjective thinking and nothing more does not seem to me to be logically defensible, since thinking that is not truth-thinking, i.e., a thinking motived by the will to think truly, is simply not thinking at all. It is mere undirected imagining. Moreover the thesis, taken seriously, would be a circular argument, maintaining in effect nothing further than that the Ideal is a mere product of Ideal-directed activity. But if we admit that Thought presupposes the Truth-Ideal and does not produce it, we are admitting that the Truth-Ideal immanent in all our thinking is essential to the intelligible structure of our thought, since thought would be meaningless apart from it. Similarly the good which we all pursue in all our strivings is so essential to appetite and desire that the latter would be unintelligible apart from it. An activity that does not proceed from the good could have no motive since the activity could have no value. That which is the source of value cannot be the product of anything that depends for its direction and development on a sense of value.

In opposition then to the argument that the Ideal is a mere product of our human need, we maintain that it is essential to the very notion of ourself as a purposive agent, even when the term "I" is used in its widest sense to cover every individual experiencer, that is every living thing. for the unifying function that binds together within a single individual bond all the individual's experiences in such a way as to promote and sustain the fundamental needs of life is intrinsically purposive, and to that extent animated however obscurely by the sense of a good to be achieved. In this broad sense all life is aspiration, and wins its vital unity through the Ideal of the Good which directs its development and satisfies its need.

The main difficulty in admitting the existence of the Ideals—I refer here to Truth, Beauty, and the Good—is perhaps this, that they do not appear to have that "being for self" which is so characteristic a feature of human existence. We have been led to accept the life of aspiration as the fundamental form of real existence, and clearly the Ideals which animate such a life are most intimately related to it. But the Ideal as such does not appear to possess any individual selfhood. We might perhaps seek to establish such individuality on the lines along which the Personality of corporate institutions like the State has been defended. But we should no doubt find it as hard to ascribe self-consciousness, in its ordinary sense to the Ideal as we do to ascribe it to the State.

But there is room here for a deeper interpretation. We may admit that the Ideal has no separate self-consciousness, but is none the less in the most intimate relation to all persons in the universe, and indeed in a less developed sense to all living things, as that power within their life which draws them in most diverse ways towards Truth, Beauty and Goodness. Wherever there is striving and desire, and more especially where there is explicit noetic aspiration, the presence and power of the Ideal is most intimately manifest. What is there that enters more vitally into our soul's very depths than the gleam of Truth and Beauty and the Hope of Good? And yet how are we to maintain that this soul of our very soul is personal as we are, what evidence have we of this? The very fact that the Ideal can penetrate our life so intimately so as to become the very essence of our own being and the spring of all that has personal or living value for us points rather to a power that transcends the limits of personality. "I" and "Thou" as persons remain personally distinct, however intimate the friendship. But "I" and the "Ideal" interpenetrate, though without fusion. The Ideal, profoundly immanent as it is, none the less transcends through its perfection the imperfect lives that cherish and revere it. In Aspiration the Ideal enters intimately into my very nature, for this Self of ours is in the making, and the Ideal is the warp on which the personality of our aspiration is woven. We seem led then to suppose that this intimate yet transcendent presence is an existence of a higher order than our own, a supra-personal Being, that its presence in our life is the continuous revelation of a Spiritual Order, an Order which relatively to our striving and aspiration is an Order of Perfection of which Beauty and Truth and Right are the triple inspiration. It is an Order adjusted to our freedom, for its appeal is never a coercion nor do its obligations compel. And the appeal is universal, relative to the deepest need of every living being, and yet as perfection's very essence remaining ever self-same and in its supreme demand abating neither jot nor tittle. Though so intimately ourselves it remains the inaccessible standard that claims our reverence and invites our worship. In the humblest recesses of our own experience we have the data, if we have but the eyes to see, for marking out the main characteristics of the spiritual order and following them further into Science, Art and the Conduct of Life.

If then the Ideal does really exist it would appear to do so in a form that cannot be regarded as restrictedly personal. It exists not as a soul but as a supersoul. As such it would be the most real existence we know, the most real in the sense of being the very essence of ourselves and infinitely more. Through its indwelling, all life is made one in aspiration as Aristotle well saw when in his Theory of Development he made the love for the Unmoved Mover the golden clue that binds all creation in a common destiny and pilgrimage. You and I are distinct, but the Ideal that is of your very essence is one and the same with the Ideal that is of my very essence: therefore at the roots of Being where Selves are being organised about the Ideal the same supersubstance may give single unity to the whole world of life,—*may,* I say, because in all that relates to the life of aspiration our own freedom is of the very essence of the movement and our alliance with the Ideal must express that freedom at every point.

It would hardly be fitting, I think, to conclude on this subject of the Ideal and its alleged Reality without a reference to the Kantian conception of the Regulative Idea, as it is the most plausible substitute for the really existing Ideal and may seem to some to present the Ideal in its true light and to prescribe to it its true function.

There can indeed be no doubt that according to Kant's express statement and conviction, the typical metaphysical Idea, the Idea of the Unconditioned, has no reality as an object of knowledge. It may help our thought to know, but cannot increase our knowledge. Under "Ideas" Kant includes primarily those of an Unconditioned Subject, of the World as a Whole, and of an Absolute Reality; more briefly, though perhaps less exactly, the Ideas of Self, the World and God. Moreover closely associated with this threefold conception of the Idea we have the further and closely related subdivision into "God, Freedom, and Immortality." Kant did not explicitly include under the Idea of the Unconditioned the triad we refer to as Truth, Right and Beauty, though the three Critiques were precisely concerned with these and the attempt to do critical justice to them, but since the Ideals, as conceived by the Idealist, are intrinsically unconditioned, they would necessarily figure among the Ideas of the Unconditioned and Kant's critical treatment of the Unconditioned in general would apply to them as well as to all other ideas of this ultimate metaphysical kind.

It will not be possible for us to enter with any adequacy into the interesting question concerning the precise function of the Unconditioned in relation to knowledge, as Kant conceived it. Valuable work in this connection has been done by Norman Kemp-Smith in his now famous Commentary. We learn in the first place that the Critique, far from being a unitary work, was in all probability composed by piecing together manuscripts written at various dates during the eight or nine years prior to its actual publication, and as it was one of Kant's weaknesses to dislike intensely the sacrificing of any argument "once consecrated by committal to paper," as Smith puts it, the final copy preserves all the arguments quite regardless of their consistency with each other, in so many layers or strata. Hence, to understand the argument of the Critique, it is as essential to be able to distinguish these strata and their respective datings as it is to fix the order of the Platonic Dialogues by stylometric and other methods if one wishes to follow the thought of Plato in its origin and growth. Now if this insight is carried into Kant's handling of the Idea of the Unconditioned, we are able to trace a twofold point of view from which its function is regarded by Kant. There is a more or less sceptical viewpoint from which the Idea of the Unconditioned is viewed as having originated in the service of sensory knowledge and as having no other role than that of helping the scientific understanding to perform its own specific work more perfectly. There is no suggestion here that the Idea of the Unconditioned is necessary even for purely scientific knowledge: at most it is necessary for a more perfect grasp of such knowledge. Moreover the "unconditioned" is treated here as a purely negative concept reached empirically by simply removing all conditioning limits, a device that science finds useful but by no means essential. Science realises that things behave as though there were a principle of infinity and unconditionedness present in the natural order, and the Idea of the Unconditioned is therefore justified on the "as if" basis, but no further. Briefly, on this view in its more strict acceptance, the Ideas are mere convenient fictions not to be regarded, even hypothetically, as representing real existences, but heuristic conceptions only. Thus the concept of a supreme Intelligence will not guide us to any objective reality. It is not expected to do this, but only to help us in achieving the greatest possible unity in the empirical employment of the understanding.

It is this aspect of Kant's treatment that has impressed Vaihinger, Kant's celebrated Commentator, as giving the real meaning of the Kantian "Ideas" and in the development of what he calls the "As if" doctrine, in a large volume recently translated into English, he relies fundamentally on Kant for the support of his main thesis.

But Kemp-Smith has drawn attention to a profounder line of treatment which is as truly Kantian as the one stressed by Vaihinger, and marks more particularly those portions of the Critique which can be shown to be of later date and to contain his more authoritative doctrine. According to this second view the Idea of the Unconditioned is no longer a merely negative conception but has a definite function in the opening up of a transcendental world, a world beyond the purview of the categories of science. The Ideas are not *merely* regulative, but regulative of an experience which they also help to make possible. This gives them a true critical function, a part to play together with the categories of the understanding in the fundamental work of rendering experience as such intelligible. Far from being derivative concepts obtained by merely omitting the restrictions essential to our empirical consciousness, mere extended concepts of understanding, they represent a factor essential to our experience, a factor independent of the framework of science, possessing a different origin, requiring a different faculty, and therefore able through their superior reality to stamp scientific experience as phenomenal only, in much the same way as a waking vision will reveal the unreal character of a dream.

This second and more genuinely critical view of Kant's whilst it gives the Idea an indispensable function in experience and rescues it from the subservience to sensory reality implied in the "as if" interpretation, does not grant to the Idea of the Unconditioned any constitutive function in experience. Its function remains regulative only, and does not offer any guarantee of real existence. However we interpret Kant, we cannot claim his support for the thesis that Ideas have a real existence, and can legitimately be apprehended as possessing even phenomenal, far less spiritual reality. Kant's argument does not deny that they possess such reality but simply emphasises the impossibility of knowing this. In the Critique of the Practical Reason our moral intuition guarantees for us the reality of the Moral Law as possessing unconditioned and absolute authority, but it is the Law of right and not any Ideal of Good that here greets us as a revelation of the realm of spirit.

An important chapter in the History of Philosophy would be covered could we halt at this point to bring out the inadequacy of the Kantian survey of knowledge and the conditions of its possibility in so far as it fails to accept self-intuition as the primary experience and treats the unifying function in experience as a logical instead of as a personal bond. Kant's critical discussion touches only the problem of the experience of objects and of the conditions which render possible a scientific knowledge of objects. A full discussion should take in the more difficult problem of the experience of the subjective as such and of the conditions which render possible a science of personality. It is our conviction that when this is done, a distinction will inevitably emerge between the mental life as lived and directly experienced and the mental life as scientifically understood. Each insight carries its own characteristic type of unity. The unity of life as lived is a unity of individuality; the unity of life as scientifically understood is a unity of system, held together through a nexus of valid ideas. Moreover a closer analysis of experience as unified through a principle of individuality would dis close the essentially creative or purposively active character of such experience, and bring out the further fact that all such purposive striving is a striving to fulfil a need and that the fundamental need of any living thing is the need for good. In this sense all subjectivity is aspiration, and we reach the point already emphasised that the unity, the unifying bond of a life of aspiration is fundamentally the Ideal, and that for all aspiration the Ideal is the superlatively real, the existent-possibly superpersonal in nature—which is bound up vitally with our self-existence as the sole source of intrinsic and absolute value and apart from whose inspiration we might indeed exist as animals but not distinctively as men.

NOTES BY THE WAY.

No. 6.

The Christianity of the Future.

There are some discoveries or revelations on which the human race does not go back. Of these the Christian religion is one, and modern science is another. Both have permanently enriched mankind, and it is almost inconceivable that either of them should disappear. They will have somehow to be reconciled; and I agree with Eucken that traditional Christianity will have to be drastically revised. Whether the new form of Christianity will accept or reject the name of Protestant does not much matter. It will belong, I think to the Platonic or humanistic type, which has always existed in the Church. It will be entirely independent of Rome, and will not conform to the articles of belief of any of the great Reformed Churches. But it will accept the moral teaching of the New Testament, and its devotional life will continue to have its centre in the idea of the indwelling of Christ.

—Dean Inge, in the *Atlantic Monthly.*

PROFESSOR NORMAN KEMP SMITH'S THEORY OF THE SENSA*

By H. C. Becroft, M.A., Lecturer in Psychology,
Auckland Training College.

In his latest work, "Prolegomena to an Idealist Theory of Knowledge," Professor Smith presents a distinctly novel view of the nature and function of the sensa. He endeavours to steer clear of both subjectivism and realism by denying on the one hand that the sensa are qualities of objects, and on the other that they are subjective states of some perceiving mind. He attempts not only to explain the sensa from the biological point of view, to show, that is to say, the part that they play in the adaptation of the organism to its environment, but also to justify his theory in terms of an idealist philosophy which regards the genuineness of scientific knowledge as one of its main supporting pillars and whose chief concern is to show that aesthetic and spiritual values operate on a cosmic scale. In short, Professor Smith's theory is primarily an attempt to show not so much *what* the sensa are as *why* they are, and thus he is chiefly concerned to explain the well-nigh complete differences which we find to exist between objects as sensuously apprehended and the nature of these objects as determined through scientific investigation. It would seem then, that his aim is the attempt to combine an epistemology of the Kantian type with the naive realism of the modern scientist. Greatly influenced by Alexander, he insists throughout upon the independent reality of time and space, and thus claims to steer clear of Kant's subjectivism. He differs from Alexander, however, in regarding the sensa as events demanding for their occurrence supplementary conditions of a physiological character, and not as qualities inherent in existing physical bodies. His general thesis is thus twofold. I, Time, space and the categories are directly apprehended as constituent of the natural world. II, The sensa are events having a definite biological function, *viz.,* that of defining the perspective necessary for the purposes of practical adaptation. While maintaining that these two fundamental tenets agree in postulating the possibility of direct face to face apprehension Smith is careful to point out that they call for separate proof. Briefly, then, the aim of this short essay is to inquire into the nature of this "separate proof," *i.e.,* to consider the significance of both tenets in the light of their bearing upon each other.

In the first place, then, we are to regard sense perception as essentially practical in nature. The achievement of practical adaptation necessitates the adjustment of Nature to the dimensions of the animal and the human consciousness. Such adjustment, we are told, has been brought about in the main by Nature's ingenious device of the secondary qualities. "How complete for instance is the transformation when the millions of violently energetic discrete entities which compose a drop of water are apprehended as a uniform whitish-coloured globule of seemingly continuous and quiescent matter; and yet for the purposes of practical life, how convenient and how entirely adequate." (Prol., pp. 11-12.)

---

*Read at the Third Annual General Meeting of the Australasian Association of Psychology and Philosophy, held at Sydney, May 21-23, 1925.

The above theory, although suggestive, is characterised by a certain vagueness which seems to be due in large measure to its naive realistic starting point, the description of reality in terms borrowed from the physicist. The theory seems undoubtedly to imply that *being* is the fundamental category, that *being real* or *being thought* or *being anything whatsoever,* is a more special thing than merely *being.* The drop of water actually consists of molecules, atoms, electrons, *etc.,* not in the sense of being apprehended as such by the scientist, but in the sense of existing in this form independently of knowledge altogether. In other words, our starting point is ontological in nature. We are then told that a remarkable transformation takes place. The atoms, *etc.* change into the *apprehension* of a drop of water through the instrumentality of Nature, a fairy Godmother who desireth not that her children should perish. Now, of course, by a "transformation" is meant a "transformation of something." Change implies something that changes, and so the outcome of the change must bear some resemblance at least to its initial stages. A theory involving "absolute change" *ipso facto* commits suicide. It is with considerable amazement, therefore, that we find Smith calmly asserting that the molecules, *etc.,* have changed into the *apprehension* of a drop of water. The theory seems to involve a complete confusion between the epistemological and ontological aspects of realistic logic.

It may be pointed out, of course, that the above criticism is misleading, in that the theory really implies a cognitive change. If this be the correct interpretation, however, it is evident that the initial state of affairs cannot be adequately described in terms of "being" alone. This raises the difficulty of assigning any intelligible meaning to the initial stage of knowledge when as yet the scientist has not appeared on the scene. We are not putting forward the view that there is no difference between sense perception and scientific knowledge. Undoubtedly different levels of knowledge do exist and *prima facie* there is an obvious distinction between the categorical and the hypothetical levels. It nevertheless remains true, that if Smith is simply referring to the above-mentioned types of knowledge, he completely vitiates the distinction between them by reversing the real order of development. Surely sense-perception comes first, and not last in the order of evolution, as on Smith's account of the matter.

It would seem, then, that his theory is really an attempt to describe an impossible change from an abstract state of *being* to a state of *being known*. If the first stage is one of apprehension we must bring in either the scientist or some Absolute knower (Alexander's angel) and both are equally impossible without violating the general principle of the argument. The other alternative is to regard the change as purely ontological, in which case the atoms themselves really change into the sensa. The absurdity of this position is obvious. From the ontological point of view, the atoms must still be regarded as existing. Smith cannot mean that the creation of the sensa involves the destruction of the atoms, electrons, *etc.* It is only from the point of view of its appearance that we can legitimately speak of "Nature adjusting itself to the human consciousness," and of the world's being "simplified by omission of all but a small selection of its multitudinous detail," and of the sensa "defining the perspective necessary for the purposes of practical adaptation." Moreover, if the purpose of this change is the adaptation of the organism to its environment, we cannot assume it to be other than gradual in its nature. In other words, if the term "evolutionary" is to be understood in the biological sense, it must follow that the sensa themselves developed, and that the *unscientific* animals alone survived. The real scientist, of course, appeared later, but he owed his scientific insight to his own powers of penetrating beyond the illusions of sense to the underlying reality. It seems a legitimate question to ask whether this insight is not again to prove his downfall.

The absurdity of this question shows the need for defining the sense in which the scientist can be said to apprehend the molecular structure of reality. We must not forget that even the greatest of modern scientists have not yet acquired such developed powers of perception as to be able to perceive molecules, atoms, electrons, *etc.* But is it not the case that Smith tends to argue as if scientific knowledge and perception were identical in type? It may be true, of course, that the difference between scientific knowledge and perception is a difference of degree rather than of kind, but we must carefully note in what sense this is so. We must recognise that sense perception contains hypothetical elements, and is imperfect from the scientific viewpoint only because this ampliative aspect is not rendered truly explicit. Smith's account of the matter, on the other hand, seems to involve the denial of *any* hypothetical element in either sensory experience or scientific knowledge. *Qua* knowledge both are complete in themselves and can stand alone. This criticism is again reinforced by Smith's conception of the physical world as so extraordinarily complicated that anything approaching complete experience of any one part of it far exceeds the utmost capacities of the human mind. "Such exhaustive experience would so bewilder and distract the mind that its primary function . . . could not be efficiently exercised." (Prol. p. 11). It is interesting to note that for Smith there is nothing in the nature of knowledge *qua* knowledge that precludes the possibility of such exhaustive experience of *part* of the physical world. This way of looking at the matter would seem to imply that reality is merely a collection of discrete entities and perception a process of cramming some of these into the mind. Confusion would result if too many were to enter—and so Nature resorts to the above-noted *"simplification process"* for the purpose of practical adaptation. In other words, adaptation is rendered possible by burying the troublesome molecules in the unconscious.

Now, unless we accept a mere "storehouse" theory of being, which necessarily fails to recognise the fact of implication, it is difficult to see why a greater insight into the detailed structure of reality should necessarily involve confusion and so distract the mind. Smith's theory seems to involve a fallacy common to many psychological theories of attention, *viz.,* the absolute distinction drawn between concentrated and diffused attention. We are told that because of this psychological difference the watchmaker and the policeman on point duty could not exchange occupations without disastrous results. We are far from wishing to contradict the possibility of such disastrous results, but simply because we believe in the truth of the maxim that experience teaches. Surely we can believe the policeman capable of extracting a splinter from his finger without calling the watchmaker to his aid, just as we may believe the watchmaker capable of crossing the street without the policeman's assistance. Attention cannot be defined as the apprehension of an entity, or collection of entities, and divided into types according to the number, or size, of such entities apprehended. We must recognise that what we attend to is a system pregnant with meaning, and we do not do away with this factor of implication when we attend to a *minute* object. An object does not become any the less a portion of a system because it is small. A watchmaker with *no* marginal consciousness has yet to be discovered. We cannot read any meaning into the theory that direct face to face acquaintance with atoms would necessarily lead to mental confusion. I perceive an object O. Examining it more carefully I perceive its parts a, b, c, d. Further examination leads to the perception of the parts of the parts, but does this necessarily mean that I have become confused and can no longer perceive O as an object at all? Does the development of consciousness imply a corresponding diminution of the unconscious? Obviously not, unless we adopt a purely artificial storehouse theory of being. We may well admit that there are different levels of knowledge as it were, but this is not to argue that consciousness grows in the merely numerical sense at the expense of the unconscious.

When we examine Smith's theory in greater detail certain inconsistencies become more apparent. It is questionable if his argument concerning the biological function of the sensa is self-consistent. He endeavours on the one hand, to explain mental perspective in terms of sensa, and on the other, to prove the interdependence of the sensa, categorial relations, time and space. Surely if such interdependence is admitted, if categorial thinking makes both intuition and sensing possible in the sense that consciousness involves all three, it is utterly inconsistent to separate out one of these factors, *viz.,* sensing, and in terms of it alone to attempt to explain the apprehension of the public world in a unique perspective. Smith contends that any theory which refuses to recognise that the sensa in themselves are unextended utterly fails to account for the facts of perspective and illusion. These latter facts then are to be explained in terms of sensa alone. The sensa create the individual's point of view. However, the sensa are not subjective; they are objective, but unlike time, space and the categories they are private, and herein lies the secret of their exclusiveness. Smith stands midway between the subjectivist and the realist. According to the former the sensa are subjective and private. According to the latter they are objective and public, but according to Smith they are objective and private.

Detailed analysis of the term "private" would seem necessary at this stage. It savours of subjectivism,—and the conception of the sensa as both private and objective seems to imply what may be termed a self-contradictory subjective realism. Apparently Smith's method of evading this difficulty is the further description of the sensum as an event, demanding for its occurrence supplementary conditions of a physiological character. Hence the two-fold function of the brain, as conditioning the very existence of the sensa, as well as the various processes, sensing, intuiting and categorial thinking.

A more complete separation of form and matter could hardly be imagined. *Sensing* and the *sensum* are so utterly distinct that on the physiological side we must postulate a twofold function of the brain, *viz.,* the conditioning of an *ing* and the creation of an *um.* Now physiological processes are supposed to accompany intuiting and categorial thinking as well as sensing. Must we not then inquire how intuiting and categorial thinking can possibly reveal time space and the categories as public? Smith's account of the matter would seem to imply that brain activity is the cause of mental perspective and illusion, not so much because it conditions the *sensing* but because it creates the *sensum.* But how can Smith refute the hypothesis that time space and the categories also depend for their existence upon the individual brain? Why should we assume that the brain on the one hand conditions sensing, intuiting and categorial thinking and, on the other, conditions the sensa but *not* time, space and the categories? Surely such a breach between form and matter ultimately lands us back in a dualism saturated with the worst fallacies of subjectivism. If the sensum is *really* objective, how can it be the special property of any one individual observer? As Holt has clearly shown, the fact of communicability alone precludes the possibility of any such conception of privacy, peculiarity or difference. (See e.g. "The Concept of Consciousness," pp. 151-152). In any case if Smith is to adhere consistently to his separation of the *ing* and the *um,* there is not the slightest reason why the individual observer should not be aware of the various sensa in, or at least created by, another man's brain seeing that the sensa themselves exist independently of the sensing. To argue that one can be aware only of the sensa created by one's own brain, is simply to argue that the two functions of the brain are not distinct at all, in which case there is no alternative but to admit that if he sensa are private, time, space and the categories must be so too. In any case the conception of a private object is an entirely fallacious abstraction. Different *perspectives* undoubtedly do exist, but surely as conditioning the very possibility of knowledge, not as distorting it.

It is true that Smith is anxious to refute any possible charge of subjectivism, but his arguments in this connection are far from convincing. He tells us that "if what we experience is in any degree and respect public and not private . . . then however partially and distortedly it is apprehended we may by indirection find in its appearances data sufficient for its true apprehension . . . In the awareness of time and space and therefore in some manner and degree of the categories reality has secured direct representation in the field of consciousness, and in so doing has imposed upon the mind an objective interpretation of its private sensa." (Prol. pp. 229-232-233.) As Smith professes to reject representationism in all its forms, he cannot consistently steer clear of subjectivism merely by postulating a certain degree of publicity. Surely if we admit any degree of privacy and distortion due to such privacy our only alternative is to fall back into scepticism. To maintain that consciousness is characterised by an element of publicity, as well as of privacy, is simply to return to the Cartesian doctrine of representationism. Neither can Smith avoid this *impasse* by drawing a distinction between knowing "in terms of" and knowing "through" sensa. All that he is concerned to prove here is that our knowledge of space is not reached "through" the sensa, but is apprehended intuitively "in terms of" the sensa. But although sensing a sensum (a process by itself impossible?) yields no knowledge of space, the sensa that are sensed, stand as representatives of a complex reality, of which any direct revelation would lead to disaster. "For what is it, that Nature has, so to speak, in view when it endows an animal with the capacity for sense experience? That the animal may be equipped for avoiding its enemies, *etc.* . . . For these purposes objects do not have to be known *as they exist in themselves* (italics mine). Thus a dog, in order to recognise water, and to be able to satisfy its thirst by lapping it with the tongue, does not need to apprehend its molecular, atomic, and sub-atomic structure. That would be a harmful complication. The animal would be bewildered by the multitudinous dancing particles." (Prol., p. 33.)

This representative function of the sensa is still more clearly indicated in Smith's contention that "nothing that we experience exists independently precisely in the form in which we experience it. . . . For though the independently real is tasted, smelt and touched and is apprehended through its radiations of sound, temperature and light, we have no means of determining how far, or in what manner, any of these qualities may precisely match those with which it is intrinsically endowed." (Prol., pp. 227-228). In the case of time, space and the categories on the other hand, reality has secured direct representation in the field of consciousness. Obviously, then, the sensa are to be relegated to a neutral realm apparently less real than *the reality* which the sensa *per se* serve but to distort and disguise, while time, space and the categories are directly represented in consciousness, although they form the very framework of the reality distorted by the sensa. In spite of this, the latter are still objective, although apparently not in their own right, but rather through the instrumentality of time, space and the categories.

It would appear that many of the above inconsistencies result from failure to discriminate clearly between an *element* of experience and an *aspect* of experience. Although from a superficial point of view the terms "element" and "aspect" may be regarded as identical in meaning, failure to discriminate between them in more comprehensive philosophical analysis can only result in disaster. To speak of mental elements is to adopt the physicist's method of explanation. The suggestion is that the discriminated element can and does exist *per se* as well as in combination with other elements. To speak of discriminated mental "aspects" on the other hand emphasises the concrete fact of identity in difference; the term "aspect" implies inter-connectedness and system rather than unrelatedness and barren identity. Although Smith criticises associationism as implying a mental chemistry, he fails, in the development of his own theory, to keep in view the distinction between "element" and "aspect" emphasised above. On the subjective side "sensing a sensum" is clearly an "element" of conscious activity when described as a unique type of cognition. On the objective side, Smith is likewise viewing the "sensum" as an element, in so far as he regards it as unextended. On the other hand, when he tells us that intuition is impossible without categorial thinking, and that sensing is likewise conditioned, that consciousness if limited to it would thereby be made to vanish, "sensing a sensum" obviously must be regarded as an "aspect" of mental process, which is neither sensing in itself, intuiting in itself, nor categorial thinking in itself, but an exceedingly complex process infinitely more than the mechanical combination of all three psychic elements. On the objective side, again, he is regarding the sensum as an "aspect" of reality, in so far as he emphasises its objectivity, its intimate relationship with time, space and the categories.

It is important to note, too, that form and matter, if aspects of conscious experience, are for Smith not aspects in the sense above defined. They are most decidedly elements. Such a philosopher as Bosanquet, we are told, saves himself a good deal of trouble by identifying "experiencing" with "what is experienced," but according to Smith he is only apparently successful because he diminishes the importance of just those distinctions and values which are of chief concern to us. Nevertheless it would appear that Smith has created an insoluble problem by drawing a hard and fast line of demarcation between "experiencing" and what is experienced. If we are to draw a distinction between form and matter as elements, it is difficult to see how we can possibly avoid creating a gulf which can never be bridged. But this tendency to separate the form from the matter of experience permeates the whole of Smith's philosophy. He bifurcates experience setting "awareness" on the one side and "content" on the other and claims in this way to save the objectivity of the sensa. But surely the fact of communicability alone saves the objectivity, and saves it, too, without any disastrous bifurcation of experience.

Everything turns on whether awareness is an element or an aspect of knowledge; in other words everything depends upon

Smith's interpretation of the self. In his "Studies in the Cartesian Philosophy," Smith tells us that "self and not-self presupposing one another, neither can precede the other, so as to render it possible." (The Cartesian Philosophy, p. 263.) Such a proposition obviously implies that the relation of mind and nature cannot be adequately described in terms of the theories of psychological parallelism, interactionism, *etc.* That the nature of mind is to be viewed in this light is again evidenced in his statement that "since awareness presupposes, for its very existence, an objective field, and since this field has as its most fundamental features independent time and space, the relation of mind and nature is, as we must recognise, a problem much more comprehensive than any dealt with in the current theories of the relation of mind and body." (Prol. p. 225.) Now we unhesitatingly claim that Smith fails to adhere to this theory of the interdependence of mind and nature. If we look a little deeper, we find that the mind is not always conceived of in terms of a subject-object relation, but falls to the status of a mere subject, a subject of attributes, a mere "thing" located in the extended. We are told that "if sense experience is to be of any use to animals or to man, in their ordinary activities, it must be not a contemplative apprehension of things as they are *in themselves* but an apprehension of them *in their relation to the self* (Prol. p. 194.) Moreover, it is only when mind is conceived of in this way that his argument concerning the privacy of the sensa can have any meaning. Smith hopelessly confuses the subject-object relation with the category of substance. He tells us that "in the process of getting itself *into consciousness,* the *outer world* has indeed become deprived of all but a very small portion of its rich content, and what remains is altered and simplified in terms of the sensa which *it brings into existence* through its action upon the living organism. (Prol. p. 227, italics mine.) It need hardly be pointed out that if self and not-self presuppose one another, to speak of the external world getting into the mind is sheer nonsense.

Neither can Smith fall back upon the modern psychological concept of the unconscious. From the point of view of the *interdependence* of the self and not self, the unconscious is implied in the conscious, and not *vice versa..* The only alternative then is to conclude that the consciousness into which the external world penetrates is located in the extended, apparently somewhere within the animal organism. We must note, too, that the external world brings the sensa into existence through its action upon the living organism, but surely from the point of view of the interdependence of the self and not-self, the living organism is itself part of the external world. If by "external" is meant "external to the organism" the external world that becomes known, *i.e.,* enters consciousness, cannot possibly include the organism, and like the pragmatist we explain everything but our knowledge of the instrument that is supposed to account for knowledge itself. It would seem, then, that if the living organism is part of the external world, the sensa resulting from the interaction of elements within the external world, are themselves part of it, and therefore public and objective.

We claim to have proved conclusively, therefore, that the privacy of the sensa stands or falls with the truth or falsity of the following propositions (a) The external world is the world external to the bodily organism. (b) The mind is located within the bodily organism. (c) The sensa resulting from the interaction of the external world and the bodily organism come into existence at the point of interaction. If the relation of mind and nature is the comprehensive problem Smith himself supposes it to be, if, in other words, self and not-self really do "presuppose one another so that neither can precede the other so as to render it possible" it is quite evident that Smith must regard the above propositions as absolutely false. On the other hand, it is quite impossible to read any intelligible meaning into his theory of the sensa unless we regard the above propositions as true.

We are forced to the conclusion, therefore, that the two fundamental tenets comprising Smith's general thesis are mutually incompatible and that what serves to hide this truth from Smith, is the fact that he has not completely escaped from the cultches of subjectivism. The substance-attribute category is at work in Smith's view of the self. Smith is still unduly influenced by the exclusive conception of individuality as his use of the term "private" clearly shows. As we have seen, he speaks of the external world getting into consciousness; he even draws a sharp distinction between what he terms "objects to" the self and "states of" the self. The sensa we are told are not states of the self, but objects to the self, while pleasure and pain on the other hand are best regarded as states of the self. So *the self* has both states and objects. Indeed he would interpret the term psychoplasm as applying to the subjective factors, *the powers, dispositions and processes* by means of which the objective continuum is apprehended. The subjective factors, therefore, are to be identified with both structure and function; the structure and function of a "psyche."

We must not forget, of course, that in bifurcating reality Smith pretends to put mere "awareness" on the subjective side. His whole argument, indeed, bears witness to the danger involved in such a pretence. Awareness clearly indicates "activity," something equivalent to the so-called "pure act" of thought, and "activity" at the present time is a word with which to conjure. It is simply meaningless to postulate a pure activity, what might be termed the activity of nothing. The fact of the matter is we are faced with two alternatives. The term implies either (a) a developing objective or (b) an active *psyche.* We simply cannot leave the act of awareness suspended, as it were, in mid-air.

It would appear, then, that in his separation of the form from the matter of experience, Smith has been led to confuse two utterly inconsistent views of the self. (1) The self that we know in knowing that we know (2) the *psyche.* For Smith, the self that we know in knowing that we know, is a self with states—a subject of attributes. We are not concerned to dispute whether such an entity does exist or not, but we most certainly do maintain that the term self is most inappropriately applied to it. Neither can any such entity be spiritualised by predicating "consciousness" of it, for consciousness can be predicated of nothing, for it is an attribute of nothing, least of all of a mere organised body. The real difficulty about Smith's "self," as with any other "subject of attributes," is that it cannot possibly *know* anything, least of all itself. Smith seems to realise this, for he tells us that "the powers and dispositions which constitute the self. . . .cannot *ever* appear within the conscious field *in themselves.*" Prol. p. 168.) In the light of the above, how Smith *himself* ever came to *know* himself, and in the light of that knowledge, to expound his theory, we must leave to the super-ingenious to discover.

Finally, if the objection is raised that the affective aspect of experience, especially the feelings of pleasure and pain, cannot be legitimately regarded as objective, that they are entirley inexplicable apart from the *psyche,* we cannot do better than to reply in the words of Holt.

> "If being experienced by different persons makes affections somehow different, everyone's experience is totally and utterly unique and we find that all communication is impossible. The fact is that the uniqueness of . . . affections in the individual soul is an appendage of the soul-substance theory . . . Pains and pleasures are as common to us as are leagues and fathoms, day and night . . . Of course all this is mere metaphor and simile to those psychologists who have fixed their gaze on the primitive wits of what they are pleased to suppose was "savage" man. For many such persons anything beyond a string and a stick is the giddiest hyperbole. But let them adjust their goggles to the situations described by Meredith and Henry James, and then try to work them out in terms of the pure subjectivity of pleasure and pain. They will be forced to the most absurd sophistries and evasions. Pleasure and pain . . . both in theory and practice, are as amenable to communication and logical handling as are the concepts of acceleration and π." (The Concept of Consciousness, pp. 109-11.)

MOTION STUDY AND PSYCHOLOGY.

By Eric Farmer, M.A. (Investigator to the Industrial Fatigue Research Board, London).

MANY experiments in Motion Study have been carried out in England since an investigation into the subject was first undertaken by the Industrial Fatigue Research Board in 1919, and we have sufficient material at our disposal to make possible a critical examination of the principles involved. Moreover it is advisable to do so, since we must make certain that the work being done in this direction is actually based on sound psychological and physiological principles, and so avoid committing some of the errors of the early American pioneers.

The terms "time study" introduced by Taylor, and "motion study" introduced by Gilbreth indicate an external point of view in regard to the worker's movements in industrial occupations, and much of the criticism that can be justly brought against their work is due to the attitude which they consciously, or unconsciously, adopted. The terms are fixed now and there is little point in trying to change them, but a more accurate description of the later work that has been done, would be the study of the psycho-physical aspect of the movements involved in industrial operations. The centre of gravity has, as it were, been shifted from the external to the internal, and the work has been guided by a genuine desire to relieve fatigue and not merely to increase output. The fact that in all cases, where it has been measurable, the result of motion study applied in this way has been to increase output, must not be taken as a proof that this was the sole object in view, but only that fatigue having been relieved the increased energy at the worker's disposal resulted in increased output. When the result in output is not accurately measurable, the general approval of the workers who adopt the new method is our only criterion, and if this is not spontaneously forthcoming we are not in a position to assume that we have relieved fatigue. It is most important that a change in the method of performing an operation should be unaccompanied by any other change such as a new method of payment, or other methods of stimulation. It is also important that no effort should be made to get the workers adopting the new method to increase their effort, or speed. If we are to be sure that a change of method has reduced fatigue, we must make that change alone and watch any results that may follow, and if this technique is strictly adhered to we have a method of judging the effect on fatigue of the change we have made.

Having briefly outlined the point of view that should be adopted by the psychologist in regard to motion study, and the methods to be applied, we may now go on to examine some of the psychological principles involved in the study.

Rhythm is undoubtedly the most important factor to be considered in obtaining an easy and non-fatiguing way of performing industrial operations. The part that rhythm plays in making for proficiency in many forms of sport is too well known to need any elaboration, so that we may confine our attention solely to the part it plays in industry. The body is subject to the respiratory and circulatory rhythms, and Muscio* has shown that there is also a diurnal fatigue rhythm even on days when no work whatever is performed. It is also possible that there may be an emotional rhythm. Experiments are now being carried out with a view to determining this, and although no conclusions have yet been arrived at, the possibility of such a rhythm should not be excluded. Any industrial rhythm that is to have a low fatigue value must harmonise with the rhythms already present in the body. To some extent this requirement is fulfilled by leaving the worker to adopt his own method and to fix upon a rhythm that he finds easy to work to, but this is not always satisfactory, for as in sport so in industry, it is found that those who are definitely trained in rhythmic methods develop a much easier way of doing their work than those who are left to discover such a method for themselves.

In dealing with industrial rhythm we have to consider at least three sets of movements,—(1) the set directly necessitated by the work itself, (2) the set necessitated by the arrangement of material, and (3) a superimposed set of movements which I have ventured to call a "compensatory rhythm."† The industrial psychologist is primarily concerned with effecting improvements in the first set of movements, and this I have called "intensive motion study,§ since it is concerned with the minute movements necessitated by the work and can only be effected by getting the workers consciously to adopt a new method. He is, however, also concerned with the second set of movements, and his ingenuity will be taxed to the utmost in endeavouring to arrange material, etc., in such a way as to make the least possible demand upon the worker. Very fruitful results, however, have been obtained by this method alone. It is very doubtful if, with our present knowledge of the subject, we are entitled to interfere with the third set of movements which seem to be superimposed upon the others and to have no connection with the work or arrangement of materials. These movements differ greatly in their type and extent with individual workers, and pre-

---

*Brit. Jour. of Psychol., 1920.
†Industrial Fatigue Research Board Report, No. 14.
§*Ibid.*

sumably are connected with each worker's individual rhythm. I have called this set of movements a compensatory rhythm because I believe it to be unconsciously superimposed upon the other rhythms in order to give a pleasant affective tone to the rhythms necessitated by the occupation. This suggestion is further borne out from cyclographic records of workers' movements, in which it can be seen to be less marked in workers adopting an improved method suggested as the result of motion study, than in workers employing methods learned by chance; but even with workers who are employing the improved methods, it is always present though in a less degree. It is for this reason that I feel the greatest diffidence in attempting to alter it, since it is probably intimately connected with the worker's individual rhythm and corresponds to what in sport is called difference of style. I believe that leaving this rhythm unaltered is one of the main reasons why workers are so willing to adopt the methods suggested as a result of motion study. They feel not only that they are employing a better method, but also that they are allowed a large range for the individual interpretation of the method.

A few examples from experiments in motion study may help us to understand better how rhythm affects different industrial processes. A new method of sweet-dipping* was instituted in which a curved movement was substituted for the sharp angular movement that was customary. The whole movement only took about two seconds to perform and in the old method the direction in which the hand was travelling was changed three times, necessitating very rapid contractions of the muscles. In the new method the process was done by one curved movement and the momentum gained in the initial part of the movement was utilised at the point where resistance to the arm's activity was greatest, so that this momentum was an essential part of the new method, whereas previously it had been checked by a change of direction on the part of the operative's hand.

In coal-getting† the rhythm of the stroke was altered to one which from a lengthy observation of many miners appeared to be the most satisfactory. This new rhythm was taught to the miners at the coal face by means of a metronome, and they greatly approved of it.

The process of metal polishing§ was examined by means of a Wattmeter and it was found that the fewer times the article was placed against the revolving wheel, the lighter the pressure with which it was held there, and the shorter the time it was held there the higher the output was. If these results were carried to their extreme limits it would mean that the greatest output would be obtained when the article to be polished never came against the wheel at all—which is obviously absurd. The truth appears to be, that so long as the rhythm of the worker is intact there is harmonious co-operation between pressure, duration and number of movements; but that as soon as the rhythm breaks down, voluntary effort takes its place and the pressure, duration and number of strokes are increased, having as a natural consequence increased fatigue, resulting naturally in decreased output. This break-up of rhythm due to the increase of fatigue was shown quite clearly in the graphs recorded by the Wattmeter, for during the earlier part of the day the workers seemed to have little difficulty in maintaining their rhythm, whereas in the latter part of the day the break up of rhythm was most marked. A training scheme was instituted based upon these experiments and very remarkable results were obtained, showing that the theoretical conclusions arrived at by means of the Wattmeter stood the test of practical application.

---

*Ibid.

†Journal of the National Institute of Industrial Psychology, Vol. I. No. 4.

§Industrial Fatigue Research Board Report, No. 15.

An example* of "extensive motion study" by which fatigue is lessened not by the worker voluntarily altering his movements, but by altering the arrangement of the materials, may be taken from the process of packing sweets into jars and labelling them. It was found that the workers employed their right hand to do the work almost to the entire exclusion of their left, except for the purposes of holding things in place. The arrangement of materials was altered and the work distributed more equitably between the two hands and the decrease of fatigue showed itself in a very large increase in output.

I have been told that the late Dr. Rivers remarked when he was being shown a repetition process that what was wrong with such processes was not that they were too monotonous but that they were not monotonous enough, and those who would effect improvements in certain industrial processes must constantly bear this in mind if they are to make any real progress. The foolish idealism involved in the saying that every worker should be taught to express himself in his work, can only be advocated by those who are entirely ignorant of factory life. There are indeed many occupations in which a man can to some extent express himself. Those processes by their nature necessitate constant attention, and have sufficient interest in themselves to provide material for the intellectual and emotional faculties. Coal-getting, for instance, is full of interest, for the miner must be constantly watching where and how he is picking in order to see that he is doing it to the best advantage.

---

*Industrial Fatigue Research Board Report, No. 14.

Metal-polishing also has sufficient interest to keep the worker's attention fixed, but it is very different with many other processes in industry. To make an ideal of teaching those who are engaged in such repetition processes as packing, labelling, stamping, tending well-guarded presses, etc., to express themselves in their work, is to make an ideal of reducing human beings to the position of automata. If we are to relieve fatigue in such processes it must be by utilising association-trains, and so making the work as far as possible semi-automatic. By doing so we shall set the worker free to engage in fantasy-formation, and so enable him to develop his own life with as little interference as possible from the repetition process by which he earns his livelihood.

There is, of course, a possibility of dissociation through too rich a fantasy life, but it is a fairly remote possibility, and it is better to run this risk than to bring these essentially uninteresting processes too much into consciousness. We may say that processes, the alternative methods of performing which, involve either the possibility of dissociation, or of unnecessary fatigue and mental irritation, should not be undertaken at all. This is certainly an arguable point, but this is not the place in which to enter into such an argument. So long as civilisation demands cheap production, so long will the lives of thousands of workers be spent in uninteresting repetition occupations, and until these conditions are altered the industrial psychologist must apply himself to relieve repetition workers as much as possible by arranging for the work to become semi-automatic.

An example of this may be taken from many experiments that have been made in packing.* The details of these experiments naturally differ, but the principle involved is in all cases the same. If the articles which are being packed are arranged in such a way as to allow the worker's association-trains to run smoothly the work is much less fatiguing than when the contrary is the case. To arrange this often involves a considerable amount of work on the part of the experimenter; for not only must the associations run smoothly but the hand must find itself at each point of the association-train in the exact position to manipulate the associated object. A really satisfactory method must have the result of reducing to a minimum conscious interference, whether it be voluntary effort, or discrimination between competing objects of attention.

I cannot pretend to have done more in this short article than to have indicated some of the principles involved in motion study.

---

*Industrial Fatigue Research Board, No. 14. Journal of the National Institute of Industrial Psychology, Vol. I, No. 1, No. 2, No. 3.

There are others which I have not touched upon mainly because I have little first-hand information concerning them. Among those still needing investigation are the effects of minute rest pauses between successive movements. The fringe of this subject is touched upon in the experiments in coal getting, and metal polishing, already mentioned, but such data as were obtained in these two experiments are by no means sufficient to allow us to formulate a theory; it is, however, sufficient to indicate that there is ample material for future investigation, the result of which should have a far-reaching effect.

NOTES BY THE WAY.

No. 7.

The New Democracy.

Mr. Arthur Henderson has been advocating in Great Britain the creation of an Economic Council or Parliament of Industry like that created in Germany, and whose discussions are reputed to represent the high water mark of intellect in any democratic assembly. In Italy the Fascists are again considering a reorganisation of democracy upon vocational lines. The establishment of vocational corporations was part of their first programme, and was overlaid either because Mussolini found himself in too stern a fight over other problems or because he had no real desire to have any democratic organisations with power. Whatever has happened in Italy the vocational organisations are being discussed again. There is something like a common political mentality in Europe because almost all nations are faced by the same problems. Democracy was steadily becoming dominant in Europe before the war. After the war there was a reaction. When swift decisions had to be made it was found democracy was impossible, and all the nations engaged in the war became military autocracies. Democracy on the old lines had been found to be inefficient. Mussolini cheered by crowds could talk about the decaying corpse of liberty in Europe. But the report of its death was greatly exaggerated. People began to find out that autocracies and bureaucracies are not always efficient, and they could be just as unbearable as an ill-regulated and badly-organised democracy. Besides the present generation was bred on democratic ideals, and it is impossible to exclude them. So the political imagination is being exercised in trying to find some political organisation of democracy which would be efficient and would exclude the mere demagogue. The Germans solved the problem by allowing the voluntary vocational organisations, agricultural, textile, engineering, distributive, etc., to nominate their own representatives on the Economic Council. Here they judged as experts, and were justified by the wisdom and sanity and expert character of the discussions in the German Parliament of Industry. Both in France and England proposals have been made by prominent politicians to follow the example of the Germans. The Italians are returning to consider again their vocational corporations. As efficiency becomes more and more necessary it is, we believe, inevitable that some reorganisation of democracy on vocational lines will take place in Europe as the result of the ferment set up by the ideas of guildsmen, syndicalists, Fascists, and other groups.

—Æ in the *Irish Statesman.*

THE PSYCHOLOGICAL EXAMINATION OF IMMIGRANTS.*

By A. H. Martin, M.A., Ph.D., Lecturer in Psychology,
University of Sydney.

I.—Introduction. II.—Factors of Racial Selection. III.—Selection by means of Psychological Traits. IV.—Cultural Factors. V.—Summary of Desirable Methods

THE present sparsely populated condition of this continent is generally recognised both here and abroad, and public opinion has slowly been stimulated so that attention is being directed upon it as a field for immigrants. Before this stream should inundate us beyond possibility of absorption, it is well to pause and consider the desirability or undesirability of an indiscriminate influx such as has hitherto occurred in certain other countries.

Up to the present, intending immigrants have been selected only upon a psysiological basis, the physically unfit being eliminated by a simple medical examination. While this physical basis of selection is desirable, it is not the only factor to be considered in reference to immigration; the mental qualities of citizenship are quite as important as the physical. Lacking a certain degree of intelligence an individual is unable to maintain himself or his offspring; on account of a high degree of suggestibility, he frequently becomes susceptible to criminal temptations. Emotional stability and self control are factors as important as intelligence, since they enable him to regulate his native dispositions and curb the tendencies of impulse. Without the possession of such intelligence and emotional stability, the chances are against such a one proving a useful and desirable citizen. To-day no selective methods are adopted to secure the rejection of unfit types, but measures are afoot in most States to segregate these within our present community. It is very certain that if due care be not exercised in the selection of immigrants, additional burdens will be thrust upon our own community together with an augmentation of social evils. It is not possible here to pursue this aspect any further than to indicate the present need for selection of immigrants by mental as well as by physical qualities. It is rather the purpose of this paper to present basic principles for such methods of selection and to consider their relative values.

The problem is similar to that of estimating the basis and conservation of desirable national characters or traits, since the additional of new units of population should aim at securing, or if possible, raising the present level of national standards and ideals. Hence, our mode of estimating desirable or undesirable characters by reference to our own national standards will serve as a guide. Those principles which present themselves as relevant to our problem are three in number, and consist of:—(1) Conservation or selection of types possessing racial qualities inherent in the stock whence these different nationalities are believed to be derived. (2) The effect of selective factors by the elimination of certain types of individuals lacking, and the preservation of others possessing, certain desirable characters. (3) Cultural effects derived from the education of the individual in the traditions, customs and social and political institutions peculiar to such nationality.

---

*Read at the Third Annual General Meeting of the Australasian Association of Psychology and Philosophy, held at Sydney, May 21-23, 1925.

II.

The theory of racial types which are alleged to bear and conserve by inheritance certain distinctive characters has of late considerably occupied the minds of anthropologists and geographers. The white race is, in general, divided into three typical races, the Nordics, Alpines, and Mediterraneans, and certain determinate physical traits have been ascribed to these types whereby they may be differentiated. Certain typical mental traits have been added by psychologists to the physical characters, but their delineation is dependent on the subjective observation and judgment of the individual writers. When one attempts to apply these basic divisions of race to nationality, one encounters the admission that no nationality is racially pure, but presents instead an inextricable blend of two or more basic stocks. As a result it is to be expected that nationalities will tend to exhibit, not pure racial traits, but rather hybrid variations of such Mendelian characters. There are two objections therefore in reference to selection by alleged racial characters.

1. In the first place, assuming the presence of two ancestral stocks among a people, their various physical and mental characters will operate as Mendelian units. This must necessarily be the case if they tend to persist as hereditary traits. Hence there will be a constant tendency by interbreeding for these traits to be combined in varying relationships and degrees. The possession by an individual of physical traits of one race will not necessarily imply the possession of any mental characters of the same stock, and vice versa. We may have a specimen racially true to stock on either the physical or the mental side, but differing on the other. Again many will possess such an admixture of characters as shall make them a hybrid blend of both, while again there may be a few racially perfect or almost perfect specimens on both the physical and mental sides Such a blending of these various traits would thus render it totally im-

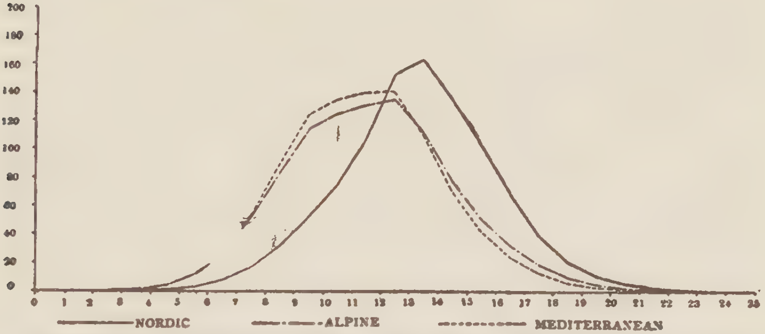
possible to depend on the principle of racial factors as a basis of selection.

2. In the second case let us first assume that there are definite racial characters, and then, according to estimated proportions of racial stock present in a nation, it may be found possible to estimate these qualities in the group. We may take as examples of such instances the high degree of "emotional abandon" ascribed to the Mediterranean type, the "submissiveness" attributed to the Alpine, and the "dominating spirit" of the Nordics. When, however, we come down to consider individuals, we observe that these so-called differentiating traits of race are not due to presence or absence of the various basic unit characters, but are rather differences of degree. The qualities of "emotionality," "submissiveness," and "self assertiveness," are traits common to all human beings ancient or modern, savage or civilised, white or black. Differentia then, are largely matters of the group, and for these collective estimates or measurements must be relied upon. Much however, remains to be accomplished before final pronouncement can be made on the possession of racial qualities, since very little progress has so far been achieved in this direction on the psychological side. Further these estimates are only valid for nationalities as a whole.

We may pursue the problem still further and consider this factor of degree in the case where an exact estimate of the different racial qualities of intelligence has been attempted. Thus Brigham* analysed the results of the American Army tests, grouping the data in relation to the nationality of the various immigrants examined. By weighting the various nationalities according to a subjective estimate of the amount of racial stock present, he arrived at certain results with reference to the general intelligence of the three basic European racial stocks. Besides possible errors in weighting, and the assumption that proportionate degrees of presence of racial stock indicate varying degrees of any trait, he also assumes that such immigrants are a "fair sampling" of their various nationalities, an assumption possibly as gratuitous as that the present Chinese population of Australia exhibit representative traits of the Chinese population as a whole. But quite apart from the grave possibilities of error in his results, when we proceed to analyse the data, we find that though his racial curves are not indeed identical, they overlap to such an extent, that the greater proportion of the one race includes most of the members of the others, and that, so far as racial intelligence goes, it is a matter of differentiation at either end of the curve, while the greater bulk of individuals show an identical relationship. (Cf. diagram). If we endeavour to retain types at the higher end and exclude all below a certain level, then we have achieved the utmost that is possible in the matter of selection on the principle of such distributions, and this entirely without reference to factors of racial traits.

---

*Brigham, Carl C. A study of American Intelligence.



Distributions of Intelligence Scores of the Nordic, Mediterranean, and Alpine groups, according to the results of the American Army tests, showing the considerable overlap of the Nordic with the others. (Brigham, Carl C. op. cit. p. 170.)

Nationality may not be maintained therefore, by differentiating pure or even comparatively pure racial types, since nationalities are too "mixed" in nature for such a principle to be depended on, nor are such traits confined distinctly to any one race. National traits appear to depend on selection which provides for preservation of right individuals and the culling of undesirables, just as in the case of preservation of breeds of domestic animals. Individual selection of efficient individuals would therefore appear to be a more reliable method than one based merely on racial traits or on nationality alone, and this principle is confirmed by the arguments that may be further advanced on its behalf.

III.

In considering the factors of selection of desirable individual types and their contribution towards national traits, reference must be made to historical examples. While such methods are inexact and based merely on opinion, yet a general agreement of authorities as to the cause of the rise or fall of nations may presumably be accepted as conclusive.

As a first example may be considered the rise and decline of the Roman Empire. Many other causes have been assigned, but undoubtedly one great and basic factor was the wastage of good original Roman stock of the patrician and ruling class. There were two main reasons for this; one was the dispersal of individuals to various distant parts of the Empire where they may have fallen in war or they and their progeny settled down as colonists; the second was the disinclination of the later patrician classes towards large families or even to any families at all, owing to the general tendency towards laziness, luxury and their inevitable accompaniment of licentiousness. Through the prevailing effects of caste distinctions, this wastage of the governing class, always a limited group, was not supplemented by the inclusion of superior types drawn from the peasant and bourgeois class, which might in some measure have supplemented the loss.

Britain, on the other hand, from the earliest dawn of history, shows a constant replacement of and commingling with the native stock by the best of colonising or immigrant types. The original Mediterranean or Celtic stock benefited slightly from the accession of good Roman and Foreign legionaries, as well as to a more limited extent, of Roman patrician stock. The invasions of the English and Northmen, and later of the mixed Norman type, added very much to the first endowment. It is not too much to assume that it was generally the selected individuals who left their Northern homes and became invaders, while serfs or thralls who were inferior mentally as well as socially, were left at home. These invaders of Britain would, as individuals, tend to possess the mental characteristics of enterprise, courage, tenacity of purpose, and above all, a superior measure of intelligence that would make for prudence and foresight in times of difficulty and danger. Probably the self assertive factor essential to a ruling class was also an accompanying trait. In the later Reformation period religious persecutions in the Netherlands and France, led to further accessions of desirable types. Nonconformity to group beliefs always requires a rugged native independence, coupled with a high order of intelligence which will produce arguments that may be used to refute such beliefs, and minister to the individual's own satisfaction, by evolving a constructive system in place of the rejected one. This further accession of selected individuals not only added a sound heritage, but undoubtedly assisted in both industrial and cultural development in England. It will be noted that all these racial accessions were not pure in type but decidedly mixed; on the other hand the selection was one of individuals.

Now let us examine an opposite case—that of the retrogression of Spain. Three selective factors were at work to reduce her from a first-class Renaissance power to her second-class status of to-day. The first was the loss of her best types who emigrated to the New World or who were killed in the Religious Wars of the period. The second set of factors were persecutions of individuals by the Inquisition, resulting in irreparable loss of one type of intellectuals, while on the other hand many intellectuals of the "conforming type" were attracted to the status of church officials with the inevitable imposition of a celibate state. Finally the extermination or expulsion of the Moors, a stock which had proved itself of high intellectuality and culture, added still further to the loss. The resultant waste of such germ plasm has inevitably contributed to Spanish decline.

The era of selection by social stress has passed with the removal of pioneer conditions of settlement, and the establishment of comfort and safety in travel to a hitherto unknown degree. The cost of migration to-day is comparatively slight and the method not insurmountably difficult, while the "newer" countries offer as "distant prospects" far more inducements for the mediocre and sub-normal than the "older" countries of Europe. The result is to be seen in the constantly increasing stream of migrants which has been flowing during the past thirty years from Europe to the less closely settled countries of the world. Such is the experience of U.S.A., and the results as shown in the case of that country are not based upon mere surmise, but are a matter of scientific certainty. The results of the U.S. army mental tests administered to over one and three-quarter millions of men have supplied data, the results of which have destroyed all confidence in the old melting-pot theory, and shaken the belief in the ability of that country adequately to absorb this huge polyglot mass.

The report of the U.S.A. Immigration committee contains the following data:—Out of America's foreign born population of 13,920,692 persons, almost half, 6,347,835 are returned as "inferior" and worse, according to the results of the army mental tests; a very small percentage attain an "average" score, and a still smaller percentage attain to a "superior" or "very superior" rating. More exact results are shown in the following table:—

TABLE I.

TYPE	NUMBER	PER CENT.
Very Superior	153,128	1.1
Superior	403,700	2.9
High Average	1,016,211	7.3
High Average	3,702,904	26.6
Low Average	2,296,914	16.5
Inferior	4,287,573	30.8
Very Inferior	2,060,262	14.8

From the succeeding Table (II.) it is easy to deduce from what nationalities the bulk of these superior and inferior types are mostly derived. In the early days of U.S. immigration it was the better types who ventured forth, mainly as settlers and pioneers. In the present century the better types have been swamped by the vast hordes of mentally inferior individuals that have crowded into the country under the easy conditions of modern migration, and the inducement of comparatively high wages.

TABLE II.*

Per cent. of Superior Types A & B in Army Tests	Per cent. of Inferior Types D, D, & E in Army Tests	Average Mental Age in Army Tests	Country of Origin	Numbers admitted during Immigration Periods between		
				1820 to 1830	1871 to 1880	1911 to 1920
19.7	8.7	14.9	England	22,167	460,479	249,944
13.0	13.6	14.3	Scotland	2,912	87,564	78,601
10.7	9.2	14.3	Holland	1,078	16,541	43,718
8.3	15.0	13.9	Germany	6,761	718,182	143,945
12.1	24.1	13.8	U.S. White	—	—	—
5.4	13.4	13.7	Denmark	169	31,771	41,983
10.5	19.5	13.7	Canada	—	—	—
4.3	19.4	13.3	Sweden }	91	211,245	95,074
4.1	25.6	13.0	Norway }			
0.8	24.0	12.8	Belgium	(see Holland)		
4.1	39.4	12.3	Ireland	50,724	436,871	145,937
3.4	37.5	12.3	Austria	—	72,969	896,342
3.4	42.0	12.0	Turkey	—	—	77,098
2.1	43.6	11.9	Greece	—	—	184,201
2.7	60.4	11.3	Russia	91	52,254	921,957
0.8	63.4	11.3	Italy	408	55,759	1,109,524
.5	69.9	10.7	Poland	(See Russia)		

The country of origin is shown in the centre of the table while the general results of the U.S. Army Mental Tests are shown on the left. These portray a general decline in the intelligence of the majority of immigrants as the nationalities are read from the top of the column to the bottom. On the right are shown the record for three typical immigration decades for the period of one hundred years (1820-1920). While there is a gradual increase in immigrants from nearly all nationalities, the increase is alarmingly large in nationalities situated towards the lower end of the list where intelligence is lowest. Had the war not abruptly checked the stream, the results of the 1911-1920 decade must have been overwhelming. Since the war the application of the "quota" system to migrants has limited the flow by permitting only a proportionate number of emigrants from each foreign country. When however, it was observed that this provision still allowed of a greater proportion from countries whose migrants showed a low average mentality, the quota proportion for each country was further revised by Congress and based on an earlier census, which allows a predominance to north-western European peoples. Thus has America attempted, somewhat late in the day, to substitute a form of racial or national selection in place of the factor of "social stress." Though something has been done in a limited way to apply mental tests to individuals who are obviously deficient, no general attempt at psychological selection of immigrants has been made there; yet after the experience of American Army psychologists with non-English speaking recruits and illiterates the task would prove a fairly easy one.

---

*Brigham Carl C. op. cit. pp. 124, 160, 161.

IV.

Within fair limits of his range of intelligence, civilised man is able to adjust himself with ease to almost every climatic condition. By means of organisation and submission to efficient leadership he has established systems of social and political institutions and customs which vary with nationality. It is not too much to say that the average individual transported soon after birth from one set of these climatic social and economic conditions to another, will readily adjust himself to the new environment. With the adult who has been moulded by his own social environment and has become fixed in these conditions a transition is a difficult matter. The adjustment to new social conditions is a matter of conflict which is only solved with great difficulty, or else not at all. Even if the individual himself be educable in this respect it is not so with the social group. The one great influence in the latter case is *tradition* which not only affects its present forms but influences its future evolution. A few examples of its unifying effect will illustrate its influence in spite of factors which, taken singly, would probably prove disruptive. Despite diverse influences of race, religion and economic interests, the British Empire is still one. Switzerland and South Africa maintain their national integrity despite important language differences. Schleswig-Holstein and Alsace-Lorraine, formerly subjected to German political rule for considerable periods, yet maintained an alternate loyalty to their former "traditional" nationalities; while Servia, despite partition and long endured Turkish tyranny, has yet at length attained nationhood. It is clearly obvious that the transplantation of large bodies of migrants to another land would tend to the perpetuation of their original national traditions in place of those of their adopted country. Historical evidence shows that this has been the case in times past, and is actually the case at present. No matter what the ultimate effect of groups may be, either absorption of invaders or modification of the original customs of a country by new influences, the transition period is unsettling and destructive to the status quo.

The U.S.A. is again a case in point. The population to-day already contains a slight majority of foreign born over native population. New immigrants are absorbed by colonies of their own nationality, which educate the growing youth in the traditions of the land of their ancestry and develop their own native language. As a result, seventy foreign newspapers are published in New York City, and one may traverse certain districts of that city without the certainty of making oneself intelligible by means of the English (or even the American) language alone. The conditions of law and order such as one finds in a more homogeneously settled social community are undermined; thus Chicago for example, with its bare four millions of population has annually more cases of murder than the whole of England. Such a state of affairs is less due to police corruption than the inevitable loosening of morality and control due to the dissolution of the traditional authority. If we take as an example the young Italian of the "East Side" of New York, we find that when parental authority is asserted at home or the patriarchal authority of his church is involved, he will probably refute it with the democracy acquired in the American common school and the streets. In this clash of traditions between family, church, and state, all moral authority tends to be set at naught, and thus is the criminal developed. The economic situation is also involved; to-day the farms of New England, first won from the wilderness and tilled by the Pilgrim Fathers and their successors, are largely in the hands of people foreign born or else of non-British descent. Politically, such foreign speaking colonies may be influenced by means of their leaders who, without any national pride in the country of their adoption, are often ready to accept bribes for the use of their influence upon the votes of their group. Such a system has undoubtedly permeated American politics to a far greater extent than in other countries, earning for itself the expressive term of "graft." Internationally such a proportion of foreign born may completely alter the original trend of policy away from the traditional direction, and in opposition to the general inclination of the original native inhabitants. Such anti-British expressions, for instance, as seen in the "yellow" journals of the U.S.A. are supported, not by the original native born population who are in the main well disposed to the British people, but by foreign-descended and foreign-born individuals.

It may fairly be claimed that an influx of foreign migrants used to specific institutions of their own, is destructive of established institutions, and induces changes which are sudden and subversive of established order rather than those which are evolutionary and gradual in character. In the interests of the maintenance of our Australian national traditions therefore, the admission of considerable groups of immigrants should be restricted so that no large colony of foreign extraction should be possible. Since individual choice of locality of residence and non-seditious associations of individuals may not legally be interfered with, a limitation of entrance conditions is strictly essential. Young immigrants also, rather than individuals whose traditions have been fixed by an upbringing under foreign nationalities are more desirable as immigrants on account of their greater educability.

There are, however, other results which are also due to sudden transmutations of social environment. Individuals of such types of mentality as would probably have discharged their social functions if not creditably, at least passably, within the environment in which they have grown up, find themselves when suddenly uprooted, entirely at a loss in a new social environment. The result is that, overwhelmed either by stress of circumstances or unable to acquire afresh the new order of things, they come to stand in need of treatment as insane or mentally deficient patients in mental hospitals. The State will thus have thrust upon it the responsibility of their care and maintenance as well as having to put up in addition with their potential and actual criminality. We may turn to statistics of mental hospitals in corroboration of this; in New York State, U.S.A., a return of the insane in mental hospitals on 1st January, 1923, showed that 46 per cent. were foreign-born, while 22 per cent. were native born of foreign parentage, crediting a total of 68 per cent. of cases of insanity to the immigrant.

Nor may conditions in our own State escape without comment in this regard, as the following table (III.) discloses. While the figures for insane British population are only 3.8 per thousand, those for the foreign-born population show the high figure of 29 per thousand.

TABLE III.

Country of Origin	Population in N.S.W. (1922).	Number of Persons in care of I. G. Mental Hospital, N.S.W. (1922 Report)	Rate of Insane per 1000 head of population
Great Britain and Colonies	2,081,000	9.122	3.8
Foreign	18,387	540	29
Total	2,099,387	9,622	

Such facts touch us vitally and warn us that the problem of foreign migrants is one that may be expected to become a future menace. The methods of measuring intelligence have been perfected with fair accuracy; in regard to the detection of emotional instability progress also has been made. The "Kent-Rosanoff Free Association tests" and the "Woodworth Personal Inventory" have already established their value in this respect for English speaking types, but their application to non-English speaking individuals has never been attempted. Psychiatrists skilled in diagnosis, might, however, be able to do something to detect cases showing a lack of emotional stability.

Since, however, forms of mental instability may not manifest themselves until some time after admission, when symptoms have become accentuated by the progress of the disease or the patient's modicum of self control has been swept away through failure to adjust himself to new circumstances, it is desirable that absolute and unconditional right of entry be not accorded to any immigrant until after a period of five years of residence in this country. If during his probationary period, symptoms of mental disease should mainfest themselves, then the patient should be returned to his native land and the burden of his maintenance lifted from this country. In order to effect this end specific legislation is essential.*

V.

As shown above, the older conditions of social elimination of "unfit" migrants have lapsed, owing to the difficulties of travel and pioneer settlement having been removed by modern conditions. The "failure" in his native country generally finds it no difficult matter to migrate, and is often actually assisted thereto. Since by means of the quota system the United States has already damned the tide of migration to her shores, the present outflow is bound to seek other outlets. Two great areas remain, viz., South America and Australia. As an earnest of this it is only necessary to call attention to the number of foreign immigrants that invaded this country in 1924. If indeed then we wish to possess Australia for our own descendants, and to hand down to them the traditions and institutions of our forefathers, it is essential that early action be taken before conditions here become similar to those which actually obtain in such a country as the United States.

We may sum up the requirements necessary to secure this as follows:—

1. The establishment of some form of a proportionate quota system whereby the influx of foreign immigrants is limited to numbers which may be readily assimilated and "Australianised."
2. The administration of simple intelligence tests to all immigrants either British or foreign, in order to exclude types that do not reach an adequate mental standard.
3. The examination of British immigrants by means of some test of emotional stability, and the close scrutiny of all foreign immigrants by skilled psychiatrists.
4. The passage of legislation allowing the right of deportation of insane or mentally deficient immigrants who have resided in this country for a period less than five years.
5. The supplementing of the present staff carrying out a medical inspection of immigrants on physiological lines, by other members skilled in psychological analysis.

---

*The writer is given to understand that undesirables who have resided in Canada for a period of less than five years, may be legally deported from that country.

PSYCHOLOGICAL STUDIES.

II.—AVERSION IN "TIMON OF ATHENS."

By Professor L. H. Allen, M.A., Ph.D. Royal Military College, Canberra.

No poetry, not even dramatic poetry, is entirely objective; and though Shakespeare seems to have taken considerable pains to conceal the deeply personal processes of his mind, he has not removed the temptation which lures us on to find them out. It is not the case of some monstrous intellect outside our species, a Gulliver inviting Lilliputian curiosity. It is rather that this man has got such a hold of us, has so incorporated our minds with his own, that we almost feel we have a right to know. None the less, we can do him and ourselves no greater injustice than the composition of partial and subjective portraits such as those of Frank Harris and Clemence Dane.

I attempt no more than adumbration. The dramas, particularly the tragedies, do not justify us in concocting stories of broken love-affairs and harrowed hearts; but they do justify us in assuming that they represent some phase of his experience. Shakespeare did not, I conceive, say to himself something as follows—"That confounded Burbage is absolutely dunning me for a play within the month. Something must be done. Now, here's a little bit of Bandello that would go quite nicely if polished." Shakespeare wrote plays for a living. So does Bernard Shaw. If the fact of being a mercenary does not prevent Shaw from speaking his mind on things, why should it have prevented Shakespeare? That the latter is more veiled about the matter is due merely to a difference of nature.

It does seem definite that Shakespeare suffered the deepest pain of mind on the subject of the world's ingratitude. We cannot say how far he took this as a personal matter. It may be that he had spent his best and felt that the world had given him little thanks in return. It is equally possible that he grieved over what he saw all around him. Like Shelley, he may very well have been

> a nerve o'er which do creep
> The else unfelt oppressions of the earth.

It is a fairly general and fallacious maxim that to feel things you must experience them personally. If that were true it would follow that you could feel nothing but what you experienced personally. Is Christianity, then, a grand mistake? And are we nothing but a swarm of isolated ego-points? The mind of Shakespeare exists, it seems to me, to show that by observation and sympathy you can make the life of all men one within yourself. It is immaterial whether Shakespeare felt the world's ingratitude as the result of his own, or of others', experience. It seems clear enough that he felt it personally, not as a detached dramatic study. It reaches its final expression in *Lear,* which sums the sublime as the English mind has conceived it. One asks—why did he abandon *Timon* and finish *Lear?*

Are the reasons purely literary? Was the plot not rich enough? He had quite enough invention to adjust that easily. Were the characters not various enough? In *Much Ado about Nothing* he invented Beatrice and Benedick, who simply are the play. Did its literary style dissatisfy him? There are bursts of eloquence in *Timon* which he seldom bettered. The literary reasons do not suffice. I can think of no other reason than that Shakespeare tired of Timon.

When Shelley was about to break with Harriet, he worked himself into a highly neurotic state. He gave a friend an enigmatic explanation of his condition by saying something to the effect that he was filled with an unconquerable loathing for objects of fear and detestation. The "objects" were, alas, an object, the unfortunate Eliza, who would interfere with her little sister's matrimonial affairs. That was a weakness in Shelley. He stretched his feelings, whether of love or hate, into hysteria.

This was counterbalanced in Shelley by radiant faith and a resilient refusal to admit defeat. Timon is a man of Shelley-like nature, but without his saving graces. He becomes the victim of morbid aversion.

There is something beautiful in Timon's childlike nature. Much that Francis Thompson wrote of Shelley might have applied to him. The world was his toy-box, and he fooled with it charmingly. He has much to make us love him; and, indeed, he stands for a vital principle that appeals to every poet—the protest of the spirit against the letter. By absolute laws he is no fool; by absolute laws the child is in the right. The wrong his friends did him, though it answered a fool according to his folly, is also the unpardonable sin against the wisdom of the wise. Timon did not want to "bind with briers the joys and desires," and he was perfectly right if only we could live in Eden. He is the noble victim of "the world's soul"; and in this sense his defeat is a victory.

Shakespeare knew all this, and he must have written with deep feeling the words of the bedraggled bird of Paradise—"unwisely, not ignobly, have I given." But he knew something more, and more important. Timon is the ignoble victim of himself.

Lucian says of Timon:—"Some say his bounty undid him, and his kindness and commiseration towards all that craved of him; but in plain terms it was his folly, simplicity and indiscretion in making choice of his friends." This is the view of a cynic, and Shakespeare, who could see the beauty in Timon, refused to adopt it completely. But he agreed with Lucian in making his Nemesis come from within himself. An anonymous play, written about 1600, gave Shakespeare a hint for putting a finer edge on the matter. In this play the motive of Timon's generosity is the applause of men. The Old Play made the loss of Timon's fortune due to shipwreck; and in the end he is converted from misanthropy. Shakespeare saw plainly enough that the loss of fortune must come from Timon's own acts. As for the conversion from misanthropy, that was the whole crux. Let us leave it for the moment.

Timon is his own undoer. There can be no tragedy without that. But lack of discrimination in the choice of friends is not a sufficient motive. That might be merely the result of an unfortunate environment. Moreover, the "friends" are symbolical. They are "the world's soul." The inherent flaw must be there if there was stuff for a tragedy. This flaw, vanity, the love of men's praise, he handles with consummate skill. Here, for instance, is a neat touch. The jeweller, anxious to dispose of his gem at an exorbitant price, says,

believ't, dear lord,
You mend the jewel by the wearing it,

to which Timon replies:—"Well mocked!" From a man of the world these words would be a cynical rebuff. From the child-like Timon they are a blush at an accepted compliment. Apemantus tells him very plainly that he loves flattery; and though not all that Apemantus says was written by Shakespeare, we may reasonably believe that it follows his creator's intention. We find, too, some echoes of his vanity when he turns misanthrope. On finding gold in his cave, he cries

Thus much of this will make black white, foul fair,
Wrong right, base noble, old young, coward valiant.

He might well loathe gold, which has proved to him the bait of deceit; but that deceit carries with it the unpleasant fact that he is not all he thought he was. He seems to reflect with some pride that at one time he had

The mouths, the tongues, the eyes and hearts of men at duty.

The change in his fortunes showed him that his gold, and not himself, had been the real attraction; and this explains why he did not wish to recover his money.

In another point blame may be justly laid on Timon. The "soul of the world" may be heartless, but it has its own side of the matter. Is not Timon just as heartless in ruining his creditors by his extravagance? If he so far compounded with the world as to borrow should he not have acquired enough worldly wisdom to borrow honourably? Yet one of his creditors says

And my reliances on his fracted dates
Have smit my credit.

Generosity can exist only within the bounds of exigencies; and the truest generosity is that which means sacrifice to the giver. Timon's generosity not only costs him no pang, but makes him a robber of his fellows.

There are some slight touches of transition in Timon's conversion to misanthropy; but in the main it is sudden, and intentionally so. It is a morbid aversion, the phobia of a weak mind. Shakespeare must have seen, as he developed the character, that he had not the stuff of tragedy in him. His flaw was not tragic. Vanity is merely a foible. There was nothing for such a nature but a sick recoil from reality; and that is not tragedy.

Why did Shakespeare abandon *Timon* and finish *Lear?* Because *Lear*, a tragedy far more terrible, had the capacity of a reconciliation no less beautiful. But what possibility of reconciliation lay in *Timon?* Should Shakespeare have followed the Old Play and re-converted Timon from misanthropy? It is not merely that this would have turned the play into a melodrama; from the necessity of Timon's nature it was impossible. Timon ends in madness, like Lear; but the madness of one is an apotheosis, that of the other, a disease. Shakespeare did not find disease a subject for tragedy. I do not think anything would have prevailed on him to write "Ghosts."

NOTES BY THE WAY.

No. 8.

The Mission of Philosophy.

The *Spectator* welcomes the "formation of the British Institute of Philosophical Studies. It has excellent sponsors in its first principal officers, Lord Balfour, Professor Hobhouse, the Master of Balliol, and Sir Lynden Macassey, besides a very comprehensive Council representing diverse spheres of thought and action. If materialism in life and superficiality in thought are the sins that most easily beset our nation to-day, the task of the Institute should be of immense importance. Its purpose is to encourage, even to popularize in some degree, pure thought, the search for abstract truth and the application of philosophy to life in all its modern complications of religion, science, politics, and industry. We trust that the philosophers who are willing to help will not be daunted by the general ignorance of philosophy among a people notoriously lacking in theoretic instincts, nor impatient of teaching us, as it were, in words of one syllable."

According to the Prospectus issued by the Institute, "reflective people everywhere are looking for guidance in the maze of thought and practice in which they find themselves. It would be fitting if the required direction were to come from Philosophy, whose aim is to see life steadily and see it whole" . . . . . "Philosophy seeks a view of Reality with no important feature left out," and while "it may never completely succeed in its quest, the principle which governs it of bringing all ideas and beliefs to the bar of reason and consistency, and of taking account of the whole of experience, will always be of great service to knowledge." "Philosophy, by enlarging the objects of our thoughts and actions, is able to make us citizens of a larger world. And it may be added that it is only by entering into the enjoyment of this larger citizenship, that man can gain love, freedom, and liberation from the thraldom of narrow hopes and fears."

RESEARCHES AND REPORTS.

THE APPLICATION OF INTELLIGENCE TESTS TO PERSONNEL IN A RETAIL STORE.

By Winifred Taylor, Farmer & Company, Limited, Sydney.

Introduction: Some parts of the organisation of a modern retail store necessitate the daily performance of many tasks of a purely routine nature, which can be efficiently carried on by an untrained junior staff. Thus, in the central cash desk, juniors are posted at the tubes, continuously extracting money and bills from the cash carriers and handing them on to the cashiers. For docket sorters, mail messengers, etc., in office departments, and as packers and messengers in sales departments, junior labour, ranging in age from 14 to 16 years, is in demand. The degree of satisfaction on the part of those in control in the performance of any of these tasks is conditioned as much by the willingness as by the intelligence of the juniors concerned.

But what future is offered to these untrained juniors? After Christmas and Sales Periods, the nucleus of the larger temporary staff is retained, the most satisfactory juniors being selected, and slowly absorbed and very gradually promoted to more responsible work. In the case of most firms, however, unless special methods are adopted, promotion is conditioned by wage-for-age considerations, the younger, bright junior having to mark time until the more "expensive" girl is moved on, generally without reference to actual ability. Such a policy is not in the best interests of either management or employees.

It is the policy of this Company definitely to train its juniors in view of future requirements. Classes for sales juniors afford instruction in store arithmetic, store spelling, counter book, store geography and store service; office training is at present devoted to classes in shorthand and typewriting, with some attention to English. In order to attend these classes members of the junior staff in sales and office sections are freed for training during a certain number of hours weekly in periods falling between the "busy" times of the year. It is therefore essential from an economic standpoint that the management should be assured that the employee is actually able to benefit by the training offered. To ensure the best practical results, careful selection of juniors has to be made not only for intelligence but for other individual characteristics such as interest and disposition, which may outweigh this first factor in some lines of employment, this being especially the case in sales departments.

By the application of certain principles of Industrial Psychology it has been possible to disentangle the various factors, and to measure or assess them on an exact and scientific basis. Intelligence may be measured by means of reliable tests; ability and personal interest in the individual task may be assessed by responsible judges, somewhat less exactly, by means of rating scales. In the present instance endeavours have been made to apply such psychological principles to selecting individuals for advancement on account of their special qualities, and also to provide suitable training for those whom it will most benefit. It is the purpose of this paper to set out in brief what has been carried out in these directions by the writer, and the results achieved.*

Intelligence Testing: The test used was the Otis Group Intelligence Scale, Advanced Forms A and B. The reason for selecting this test was that it covers a wide range of ability, it can readily be given to groups, and correlates with the Stanford Binet Scale. (Jnl. Educt'l Psychol. May and June 1918. See Manual of Directions.) It has been standardised upon over eleven thousand unselected subjects. Again, by means of the alternative forms of the test, coaching of a second group by members of a first is to a large extent obviated. It possesses the final advantage of affording comparative age norms of mental ability, thus readily permitting the ranking of individual intelligences by means of "brightness norms," irrespective of chronological age, after Terman's method of the I.Q.

Before applying the first group test of intelligence, March, 1923, a meeting of all heads of departments was called by the Directors of the Company, to afford the writer an opportunity of explaining the principle of tests. The confidence displayed by the management was effective in ensuring the support of lesser authorities, which was reflected in the interested attitude of the junior staff who underwent the first group test.

The subjects, in the first group tested, were all girls from sales and office departments and ranged in ages from 14 to 16 years. The test was conducted on two mornings following, at 10 a.m. The experimenter was known personally by the group, through her association with the Welfare Department, and she was therefore enabled to make a pleasant human approach before applying the tests; this method of introducing the test was adopted throughout with every group of girls tested. When the boys turn came, later in the year, the precaution was taken of having the group addressed by a man, namely, the staff superintendent, who carefully explained the reasons for giving the test, and who introduced the experimenter as the expert who would conduct the test. All subjects were informed, before undergoing the test, that their records were to be treated with confidence, and they were invited to call in person and hear their results, two weeks from the date of testing.

From 1923 up to the present, the Otis Test has actually been administered to 273 girls and 68 boys, either sex ranging in age from 14 to 18 years. The girls included both members of office and sales staff, the boys only the latter. The results of the tests are shown in the following table, the scores being calculated here on the percentile age basis.

---

*Acknowledgments are due to Dr. A. H. Martin, Sydney University, for assistance in the preparation of this paper.

OFFICE STAFF.

	Number of cases	Average in Percentile Range	S.D.
GIRLS	44	46.4	24.5
	70	45.3	27.5
	30	46.3	27.5
	General Average	45.8	

SALES STAFF.

	Number of cases	Average in Percentile Range	S.D.
GIRLS	38	37.1	28.3
	55	27.7	22.8
	35	35.0	21.4
	General Average	33.2	
BOYS	47	36.7	24.3
	21	34.6	24.9
	General Average	35.8	

There is of course a considerable overlap in the actual range of the scores, but it is evident from the above measures, that there is a *constant difference between the average intelligence of the office and the sales staffs.* In the latter case this is corroborated by the results of the tests furnished by both girls and boys, the results in their cases being only about 6 per cent. apart. On the other hand the differences between the girls and boys sales staff and the office staff show for the latter an excess approximately 38 and 30 per cent. respectively of the results of the former groups.

These results are corroborated by those obtained by American investigators. Carrying out psychological tests in Macey's Ltd., general store in New York City, Bregman[*] found distinct differences of intelligence between office and sales staffs in favour of the former. Elkind[†], using the Otis General Intelligence Examination in a general store in Chicago upon 133 juniors, obtained almost identical results. He found the office median to be 44.5 percentile, and the sales median the 30.9 percentile. One other finding of importance in which the writer's experience also corroborates that of Elkind are in regard to some of those who attained to a very low standard in the test, but who were useful in their particular capacity as stock girls. Such positions require not even an average degree of intelligence but a capacity for industry and application in a simple routine task. Concerning these cases Elkind writes thus: "Some of those who secured the lowest marks (below 20) proved to be highly satisfactory in their positions.

---

[*] Bregman, E. O., "A study in Industrial Psychological Tests for Special Abilities," Jnl. of App. Psychol., June, 1921.

[†] Elkind, Henry B., "Mental Hygiene in Industry." Jnl. of Ind. Hygiene, July, 1924, pp. 113-122. Boston.

Investigation showed that some of these were high-grade morons (by the Stanford-Binet), but that *the work they were doing did not require an average amount of intelligence*. With one exception they were not clerical workers; the majority were employed as stock girls."

Rating Methods: In order to corroborate test results by means of some practical standard of ability, judgments were obtained from heads of sales, office and training departments, these affording an additional means of comparing the values of estimates, since if these differed widely, objections could hardly be raised against differences between these and the tests; again, if these showed close agreement and together differed widely from the test results, then the tests of intelligence could not be regarded as useful measures in actual practice.

The judges were asked to rate the capacity of the subjects known to them as follows: 1—Superior; 2—Above Average; 3—Average; 4—Below Average; 5—Poor. Owing to the inexperience of the judges and the fact that the subjects were drawn from many different departments it was found impossible to use the usual and more exact ranking method, whereby exact correlation might be calculated; as a consequence, the results can only be stated in general terms, instead of in actual correlation figures.

Difficulty was experienced by heads of departments in judging general ability as apart from other factors, and, again, there was a disinclination to rate subjects as "poor." Willingness to run messages and other such performance was sometimes construed as brightness, while the more difficult and irresponsible, though brighter, junior was naturally enough dubbed "unsatisfactory." Then many tasks were of such an elementary nature that there was no opportunity for exercise of judgment as to future capabilities. Another frequent cause of disparity between the test ranking and departmental ranking was the emotional factor. Especially is this the case where the test rank attained was high and the ability of the subject was ranked low by the departmental head. The teachers' judgments were in closer agreement with the test, especially in office training sections. It is noteworthy that every successful shorthand student ranked above average in intelligence; but for typing there was not such close agreement.

The results for one group are shown in the scatter diagram below, perfect correlation being indicated when all the figures centre about the diagonal line A—B, these being in heavy type. The closest correspondence is shown in Table 2, for shorthand performance with intelligence, as stated above. No. 3 Table comes second, while Table 1 shows the least degree of correspondence of all. It is to be noted that all these subjects did not take the shorthand test.

Discussion with heads of departments has, however, removed scepticism and has resulted in a greater sympathy with personnel characteristics. They have shown, in their later judgments, a far greater development of psychological insight, and a finer appreciation of the future value of the individual child in regard to possibilities of training and promotion.

1.—Correspondence between test ranking and departmental ranking—Office Juniors.

Percentile Attainments in test.	5	4	3	2	1
100–80			5	3	**5**
80–60	1		9	**9**	1
60–40		1	**7**	4	1
40–20		**4**	5	4	
20–0			6	1	1

A B

No. of Subjects=67.

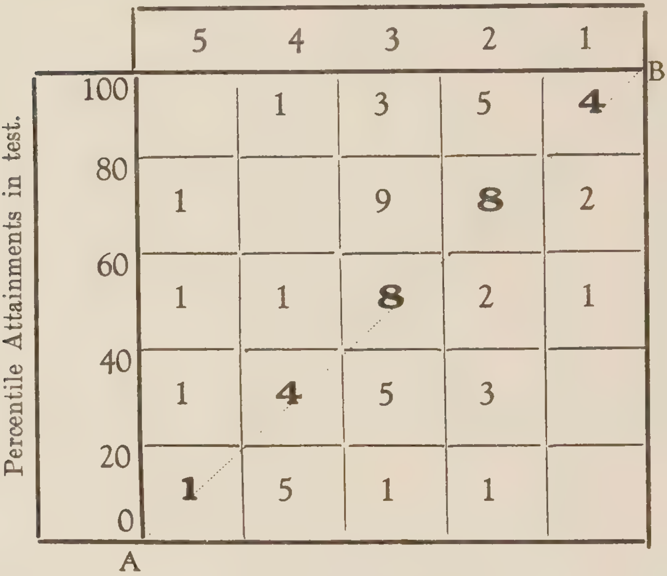
2.—Correspondence between test ranking and shorthand teacher's ranking.

Percentile Attainments in test.	5	4	3	2	1
100–80				5	**3**
80–60			2	**9**	1
60–40		1	**9**		
40–20	3	**2**	3		
20–0		3	1		

A B

No. of Subjects=42.

3.—Correspondence between test ranking and ranking by teacher of typewriting.



Percentile Attainments in test.	5	4	3	2	1
100–80		1	3	5	**4**
80–60	1		9	**8**	2
60–40	1	1	**8**	2	1
40–20	1	**4**	5	3	
20–0	**1**	5	1	1	

No. of Subjects=67.

Further Data: As the results show the data of the Intelligence Tests have afforded a better approach to the understanding of the individual and of adjusting him in such a way that he is suited as far as possible to the job in which he is engaged. But in addition much other information is required and is included under a staff survey. For each individual this comprises information concerning age, department, father's occupation, school, departmental transfers, present and future work, and desires for promotion; this information is obtained from a questionnaire filled in by each individual before undergoing the test. Then follows the test result, departmental and training teacher's ranking, together with departmental opinion and training record, obtained by the experimenter in person. Recommendations added include suggestions for transfer, where a full investigation has shown that there is maladjustment. Finally, the interview with individual juniors affords much additional personal information, especially of the individual's interests.

Applications: To ensure the best placement of juniors it is essential that a job analysis be made of various typical positions. On this basis that individual who appears to come closest to the requirements demanded may be selected for the particular job.

The results of the intelligence tests is naturally one of the foremost factors for consideration in grading an individual for either office or sales departments, but next to this must come such personality factors as appearance, trustworthiness, etc., according to the requirements of each position. For instance, office work which involves the handling of cash demands personal integrity as a basic characteristic, while members of the correspondence staff require a high degree of intelligence and stenographic ability. In some sales departments personal appearance is a first essential, in others ability to appreciate the requirements of the customer.

Another direction in which the survey information has proved useful is that of individual readjustment, wherever this may be necessary. Obviously the maladjusted individual is an economic waste as well as being personally unhappy. One of the best results both from the employees' and the managerial point of view has been this readjustment of "misfits." Previously transfers of staff were not favourably looked upon by heads of departments but now, thanks to ths working of the "psychological leaven," there is much more conscious recognition both of the necessity for rating the individual and the need of a congenial atmosphere for him, but again the intelligence factor must be given first consideration; incidentally it may with confidence be asserted that it has rarely been found necesasry to dispense with the services of a junior assistant with a high test record. Where the head of department reports unfavourably, a transfer now provides the solution of the problem.

In conclusion, it may be of interest to quote a few special cases where re-adjustments have been made on the basis of individual attainment in the Otis Intelligence Tests. The heading shows the particular form which the maladjustment has taken and the description of the measures taken to remedy the disability follows:—

Disposition Factor: Case A. Tested high but was reported sulky and disobedient by the head of her sales section. She had expressed a wish for a transfer to the office. This was finally made on the basis of test results. Six months later the office section head reported as follows: "A bright, willing assistant, with plenty of initiative."

Home Disturbance: Case B. Tested low and was marked by her department as uninterested. Inquiry revealed home troubles, which were later adjusted. A further test, twelve months later, ranked her "above average" and her department has reported that she "has improved more than any junior in her department."

Appearance Factor: Case C. Tested second highest of 83 juniors. She was a dull-looking girl and was first engaged for a busy period; she would probably not have been employed otherwise. A recommendation for increase in salary had just been lodged by her head of department on her behalf, and the test confirmed the statement that she was an assistant worthy of extra consideration.

Interest Factor: Cases D and E both showed "superior intelligence" in the test but were regarded as lazy and incompetent in their sales departments. At the time, however, they were engaged on elementary tasks. Following on the test results they were given a little responsibility and much more exacting work; they have since proved to be interested and full of initiative.

Social Factor: Case F topped the list of 83 in the test, has a high school education and was a well-mannered girl. She was engaged temporarily for cleaning work, at the suggestion of a sister already in the employ of the Company. After testing, it was recommended that she be transferred to office work, where she gained swift promotion, and she was an exceptionally bright student in the shorthand and typing classes.

CONCLUSIONS.

1. The results of intelligence tests applied to the junior staffs of a retail store show that there is a wide difference between the averages of intelligence of the office and sales staffs in the establishment, that of the office staffs being considerably higher. The results are almost identical with those obtained by American workers in the same field.
2. Individual test results may with confidence be utilised along with other personality factors for the placement of juniors in various positions. Such placements afford better adjustments than those afforded by unpsychological and subjective methods.
3. By utilising test results together with personal information maladjusted individuals may be transferred to other positions, with profit to themselves and to the firm.

NOTES BY THE WAY.

No. 9.

The Pragmatic Sanction.

We have learned through the experience of American history that "action gets results." We have seen that "organised action" gets even greater results. And a great danger lies in the fact that we are being educated, in school and in college, almost exclusively in this philosophy. There is scarcely a man in authority who dares fly in the face of current teaching and assert that the religious life of the country, its foreign policy, its negro problem, and the problem of its economic future cannot be ordered by the "go-getter," the aggressive man, the "he-man," the man of action and the organiser . . . . Indeed it would seem as though education has been drawn away from its spiritual foundations.

—American Correspondent in London *Observer*.

DISCUSSION—BEHAVIOUR AND MODERN BIOLOGY.

By Dr. A. H. Martin and Mr. R. Simmat, B.A.

I.

A paper entitled "Behaviour in the Light of Modern Biological Research," by Mr. R. Simmat, appeared in the last issue of this journal. Some of the statements are not in harmony with current psychological doctrine, and require an answer.

On p. 109, par. 4, it is stated that "these reactions are the instinctive, and have often been more definitely localised as being co-ordinated in the cerebellum." So far as any neurological evidence is forthcoming any instinctive centre is rather to be found in the thalamus, the cerebellum being regarded as a co-ordinating centre for the maintenance of bodily equilibrium. The evidence in favour of a thalamic centre for instincts is twofold:—(1) Head's clinical observations upon a patient suffering from a lesion of the thalamo-cerebral tracts upon one side of the brain, and (2) evidence from comparative neurology, which shows the relatively more important development in animals than in man of the rubro-spinal tract, which has a thalamic "centre." Such evidence, however, is not final, but the writer is aware of none even of so slight a nature as this in favour of a cerebellar centre for instincts.

A statement on p. 110, par. 2, reads, "this state" (Paralysis of one or more organs) "may be remedied by cutting the sympathetic nerves attached to the organ." Such an assertion seems extremely doubtful. The reference should have been directly applied to the voluntary muscles of the limbs, and not to the vital organs. Nor is it true without qualification even in the former case.

On p. 112, par. 2, it is stated that "each instinctive act is accompanied by its emotion." The reference is evidently to McDougall's thesis of "instinct emotions" which postulates a specific emotion for every typical instinctive act. Shand criticises this standpoint by showing that locomotion may be concerned with the expressions of fear or anger. Other cases are those of vocalisation and construction. The former is a very general mode of activity subserving the expression of many emotions, the latter is unduobtedly connected with the emotions of sex and tender emotion. Drever also amends McDougall's thesis of instinct-emotions by postulating "interests" as milder forms of the emotions. Unless the latter position is accepted, life from the affective side, must pursue a continuous welter of emotions.

On p. 113 par. 2, the statement runs that it "might be more convenient to call these" (such tendencies as scratching a spot that itches, blinking an eyelid or sneezing) "pure reflexes." The Watsonian behaviourist or the physiologist would readily do so, but under the same head he would include also still more complicated types of reaction, e.g., instinctive types of behaviour as well as types of voluntary choice, in the same general category. This however would not meet with Mr. Simmat's approval, as from a subsequent remark in his article he would appear to differentiate the various "levels." So far as observation shows, the itching of a spot on the skin, the irritation of the mucous membrane preparatory to a sneeze, and in many cases the minatory movement that induces the eye blink, are, except in sleep, actually and consciously cognised by the individual in almost every case as clearly as sensations of taste or colour, and no desire to simplify the classification of such phenomena will justify the relegation of all such types of action to the spinal level.

Mr. Simmat writes on p. 113, par. 1, "finally there are the instincts connected with sex." Such an order of development of the instincts as here presented appears to be rather strained. Surely Mr. Simmat's biological training must allow him to concede the early development of sex, and simple logic would lead him to antedate the sex instinct to the protective or maternal instinct.

On p. 115, par. 2, it is stated "that panoramic vision cannot perceive the third dimension." It may be asked if a human being with only one eye available for vision does not perceive the third dimension, how then can he react to stimuli which imply this factor? Again many animals possessing two eyes which cannot act together as one organ, yet react to depth with accuracy. One would agree that such cases of panoramic vision do not include steroscopic forms as is the case with human binocular vision, but the statement that the third dimension is not perceived by means of panoramic vision is not justified by experience. In the case of the cinematograph picture a ready example is afforded; depth to some extent is still perceived even though stereoscopic effect is entirely absent. (C.f. Titchener. *Textbook,* p. 315 par. 2).

On p. 115, par. 4, it is stated that "he no longer merely feels, he recognises, he discriminates." Cognition surely does not await the evolution of self-consciousness and speech; otherwise the results of ordinary observation and psychological experimentation must both be fallacious. Discrimination must be present implicitly if not explicitly as is the case when these other factors are present. Again, later in the same paragraph it is stated that when speech and self-consciousness are attained, "he has reached the stage of intelligence." Intelligence certainly varies in degree in different individuals, but even a modicum of the capacity cannot be denied such a lowly animal as the white rat.

Later, on p. 16, par. 2 and 3, his use of the term "memory" appears with a connotation entirely different to that specifically accorded it in psychological texts. The older term suggested by Stout, that of "dispositions," or the more recent one adopted from Semon, that of "mneme," covers what Mr. Simmat appears to wish to express; as it stands, the statement that "Intelligence and ontogenetic memory are directly proportional to one another" very naturally leads to the inference that intelligence may be directly tested by means of memory.

Indeed in par. 4, there is a regular transition from his use of the term memory as "mneme" to memory as capacity for retention and recall, and thence to memory as ideas of previous experiences reinstated by recall, so that one is led to the belief that such is his position. In any case intelligence does not consist of stores of associations of actual experiences but is rather of the nature of an innate capacity; mere associations without intelligence make the pedant, but when combined with intelligence they make the wise man. Highly intelligent but youthful individuals do not generally possess the requisite experiences to make them wise.

A footnote, p. 117, contains the statement "this description follows MacDougall and to a lesser extent James." The doctrine of various forms of co-existent "selves" or "me's" such as here portrayed (p. 117, par. 2) is advanced solely by James and not, so far as can be discovered through any known references, by McDougall at all.

Finally, with regard to the standpoint of the paper which is professedly biological, it might be asked what is the biological counterpart of the integrating principle of personality as well as that of the final moral of the concluding paragraphs, since biology like psychology is amoral in its outlook. The presumption follows that either the paper does not confine itself to its obvious title, or else morals and psychology are merely branches of biology.

—A. H. Martin.

II.

Page 109, par 4: In making the remark "these reactions are the instinctive, and have been more definitely localised as being coordinated in the cerebellum" it was not intended to suggest that the cerebellum is a "centre" for instincts. The writer considers that the allocation of any particular portion of the brain as a "centre" for anything is erroneous. In human beings the brain functions more or less as a whole. It was really intended to suggest that the cerebellum functions as "the great administrative office which attends to the details of the proper execution of the acts which have previously been determined upon and initiated in the other departments of Government." (Herrick, Introduction to Neurology, page 216). Hence, instinctive acts (though they are not the only ones) are dependent upon the cerebellum so far as their ultimate expression is concerned. This being understood, the suggestion in the criticism, of a Thalamic "centre" for instincts is irrelevant. The writer would like to remark, however, in this respect, that he agrees that this is by no means justified by the evidence. The term Thalamus itself is not definite and may be applied to (1) the middle and larger subdivision of the Diencephalon, or (2) the entire Diencephalon.

Page 110, par. 2: An acquaintance with the work of the late Professor Hunter justifies the statement that "this state (paralysis of one or more organs) may be remedied by cutting the sympathetic nerves attached to the organ." Having listened to a lecture by Professor Hunter on this subject, the writer is personally quite satisfied on the point. It seems quite clear that the reference is directly to the voluntary muscles of the limbs since (1) no reference in particular is made to vital organs, and (2) the preceding sentence makes this position quite clear. The criticism undoubtedly attaches a too narrow meaning to the term "sympathetic nervous system," considering it solely as being concerned with the functioning of the "vital organs," whereas, the writer understands it to be also concerned with the maintenance of the muscle tone of the limbs.

Page 112, par. 2: Whether one accepts the statement that "each instinctive act is accompanied by its emotion" or not, depends a great deal on one's definition of an instinctive act. In his definition of instinct the writer has made it clear that he agrees with McDougall's thesis. So far as Shand's criticism is concerned there can be no doubt that locomotion may be the expression of the instinct of pugnacity. Fear is an emotion not an instinct—it is the explicit expression of the instinct of flight. Drever's amendment of "interests" seems too mild an expression for any of the feelings accompanying pure instinctive reactions.

Page 113, par. 1: It would certainly be strange not to concede the early development of the sexual instincts. The intention of this paragraph was to trace out the development of various instincts from one single original tendency. For this purpose nutrition was taken as a starting point. From what might be called the "nutrition need" there evolved, search for food, pursuit of prey and the adoption of means for capturing prey. It is pedantic to say that there is any definite sequence in these tendencies. The writer then suggested that from the "defence need" were developed tendencies towards, firstly, passive defence (structural), and secondly, active defence, such as flight and pugnacity. When it was stated "finally there are the instincts connected with sex" it was not meant that the sexual instincts were the latest to develop. They were really present almost from the beginning. The sex instincts were placed at the end of the list because they are the most complicated to trace. Simpler examples of the development of an instinct were placed first. The paragraph should be considered as being divided into six portions concerning the development of certain instincts from (1) the "nutrition need," (2) the "defence need," (3) the "care of young need," (4) the "sex need," (5) the "social need," and finally (6) various instincts of disputable origin.

Page 113, par. 2: The question whether sneezing, scratching, etc., are 'sensation reflexes" or not, depends on what differentiation one accepts between a reflex and an instinctive act. The writer has definitely committed himself to the view that an instinctive act is (a) one that promotes the welfare of the organism, (b) one that is accompanied by an emotion. Sneezing, etc., are accompanied by a minimum of emotion and so cannot be termed instincts. The blinking of the eye may be cognised but one need not cognise the irritation before he blinks. The cognition process may exist in this case, but it is not a necessity for the appropriate reaction to be made. In man cognising occurs with most reflexes but it is not an essential element. The reaction can be performed just as effectively, and perhaps more so, if it is absent. For example if one knows he wants to sneeze the sneeze is often inhibited.

Page 115, par. 2: This portion of the paper dealing with Binocular vision has perhaps excited more comment than any other. One correspondent assured the writer that he is convinced that if he closes one eye he does not see things at all differently from when he uses both eyes. Obviously when one eye is closed, the field of vision becomes limited on one side by the nose. Again, with one eye closed it is difficult to estimate distances without any secondary criteria. With the human being who has only one eye available for vision, perspective enables him to appreciate the third dimension to a certain extent—that is to say, he learns to utilise secondary criteria in order that he should perceive depth, etc. With regard to animals possessing two eyes which act independently and who react to depth with accuracy—in these cases the first question is how accurately do they react to depth? Experimental observations are by no means definite on this point. If they do it is due to special phenomena which result from a process of the decussation of the fibres in the optic chiasma. If panoromic vision does react to the third dimension at all it is not due to the "overlapping" of the fields of vision as is the case with binocular vision. If panoramic vision does react to depth the process is the result of neurological combination, and is not a true perceptive process, where the combination is more "mental." Depth is perceived in the cinematograph picture by means of perspective, i.e., by secondary criteria.

Page 115, par. 3: Whether cognition awaits the development of self-consciousness or not is a disputed question. Much depends on the particular system of psychology to which one adheres. Miss Calkins would certainly agree that it does. "Cogito, ergo sum" seems also to imply this. It is impossible to cognise completely without some reference to self as something most intimately concerned with the reality to be cognised. The latter portion of the criticism on this paragraph shows that the conception of intelligence outlined in the following paragraph has not been understood. The reactions of a white mouse are not completely intelligent, because they are not made in accordance with an "idea of behaviour." This consistency with an "idea of behaviour" is true of human behaviour alone, and then not always. When there is no consistency, the reactions cease to be intelligent. A great deal depends on the connotation of "intelligent." In the next paragraph the writer has outlined his conceptions. The statement "intelligence and ontogenetic memory are directly proportional to one another," is justified by the fact that the intelligent act is that in which the individual brings to bear all his previous experiences upon a situation and reacts accordingly. The inference that intelligence may be tested by *ontogenetic* memory certainly follows. No tests have yet been devised to estimate *ontogenetic* memory; such would involve exploration of the whole subconscious strata of the individual. The exploded psychological fallacy is that intelligence cannot be tested by means of *"memory span"*. The memory of the *memory span* is an entirely different thing to *ontogenetic* memory, i.e., the ability of the individual to synthesize the facts of his life history so that, when a situation demands, those pertinent can be consciously or sub-consciously recalled. The recall is more often sub-conscious than conscious.

Page 117, footnote: How far the footnote is true may be estimated by the fact that most of the description given in the first and second paragraphs on the page is a paraphrase of pages 176 to 190, from "An Introduction to Social Psychology," by William McDougall. The conception of the various "selves" is certainly that of James, but even this is interpreted in the light of McDougall's description. The writer endeavoured to combine the two conceptions and, in doing so, utilised McDougall's work much more than that of James. Hence the footnote.

The final criticism resolves itself into two portions:—(1) the question—what biological counterpart is there to the integrating principle of personality? (2) the relation of morals and psychology to biology.

The first may be answered by reference to Professor Grafton Elliot Smith's book, "The Evolution of Man" page 26. Here the view is advanced that as the Neopallium evolved so did intelligence and capacity for the association of ideas develop. In tracing out the evolution of the Neopallium we may trace the evolution of mind and, with mind, personality.

Whether Morals and Psychology are branches of Biology has been argued before this. The writer's point of view is that Morals and Psychology are dependent on Biology just as much as Biology is dependent on Psychology. No one branch of knowledge is independent of any other. The Psychology that is based upon a knowledge of Biology is much better fundamentally than that which is based upon metaphysical speculation. Similarly, we may accept a system of morals with more conviction if it is the result of thought upon life as presented by the facts of biological research. The ideal is to make morals fit the facts of life and not unnaturally to distort our life to make it compatible with a metaphysical system of morals—the outcome of speculation alone.

—**R. Simmat.**

REVIEWS AND NOTICES OF BOOKS.

BENEDICT SPINOZA. By J. Alexander Gunn. Macmillan & Co., in association with the Melbourne University Press. Pp. xii + 167. Melbourne, 1924. Price 8/6.

"This little work," says the author in his preface, "aims at giving, along with a biographical sketch, a general *vue d'ensemble* of the thought of one of the world's greatest philosophers." With this end in view Professor Gunn has succeeded in producing a very compact and useful volume. It is appreciative rather than critical, and should serve as a good introduction either to students beginning a study of Spinoza or to those whose prejudices have kept them from a first-hand acquaintance with the writings of this so-called pantheist. But it is more than an introduction. Professor Gunn leads us to view-points which may be easily overlooked even by the seasoned student of the Ethics. The data of his exposition are drawn from a wide field of research. The volume is enriched with a portrait of the philosopher, a map of the "Spinoza country," and a very complete bibliography. Two chapters of biographical and historical interest help the reader to grasp the true significance of Spinoza's Metaphysics, Psychology, Ethics, and Sociology. These are lucidly expounded in four chapters entitled, "The Nature of the Universe," "Human Nature, Passionate and Rational," "Liberty: Religious and Political," and "The Commonwealth." Especially interesting is the light which the author throws upon the sociological and political views of Spinoza. "He would support in these times," says Professor Gunn, "a Labour Party in Parliament, and an intelligent use of the vote, while condemning revolutionary politics. But he does not wish his objections to be made an apology for despotism or absolutism."

If this volume will induce many readers to study the writings of Spinoza rather than merely gather opinions about his philosophy, it will serve a very useful purpose. Now that "Everyman's Library" includes the *Ethics* of Spinoza, together with the valuable fragment on *The Improvement of the Understanding,* there is little excuse, even for the general reader, to remain unacquainted with his philosophy. It may require some courage to surmount the difficulties which the philosopher (in an age devoted to Mathematics) imposes upon his readers by employing the method of Euclidean geometry when formulating his doctrines. But those who work steadily through his closely reasoned propositions to the end of his system of Ethics will find that they have gained a new and illuminating conception of the universe and man's place therein. The dualism of Descartes which separates mind and matter into two distinct substances—a dualism which Spinoza sought to resolve—is after all the working philosophy of most people. The monism of Spinoza, who regards mind and matter as but attributes of one self-existent and eternal Substance, is essentially the philosophy of those scientists and theologians who wish to obtain an all-inclusive view of Reality. When Science speaks of "Nature," and Theology of "God," they but postulate that unity and uniformity behind all particulars which Spinoza expresses in his idea of "Substance." To the scientist Spinoza may seem hopelessly involved in Metaphysics, and the theologian may shudder at his Pantheism, but philosophically he affords them the only logical standpoint if they wish to avoid the dualism of Descartes and to envisage Reality as One. That some further advance is possible beyond the static impersonalism of Spinoza the history of subsequent philosophy gives abundant evidence. But to intelligently follow the advances made, whether by Hegel into the calm realm of absolute Spirit or by Bergson into the flux of Cosmic Becoming, the student must begin with the Substance of Spinoza and in the spirit of his "intellectual love of God." The inadequacy of the category of Substance, as an ultimate principle of explanation, will be felt by those who read Professor Gunn's illuminating volume and then study afresh the writings of Spinoza himself.

—M. Scott Fletcher.

LUTERO. By V. Macchioro. Formiggini, Rome, 1925. 87 pp. Price, 3.50 lire.

This brochure (in the Italian series *Profili*) by the eminent Italian archaeologist and historian, Prof. Macchioro, deserves special attention because of the vividness of the picture, the choice of the salient features in a great character study, the psychological insight into Luther's motives and inner life, and the significance assigned to Luther in the evolution of human thought. The author recognises that the best illustrations are to be drawn from Luther's own words. Macchioro holds our attention in his presentation of this man of "terrible faith" in God, of assiduous prayer-life, of many moods, in whom several souls dwelt, this legalist, bitter controversialist, poet, impassioned preacher, church organiser, this mystic and stern man of action.

Luther, like all outstanding personalities, compels us to the task of attempting to explain him. The literature he has called forth from friends, foes, and neutrals, witnesses to his greatness; for example, the works of the eminent Cathlolic historians, Denifle and Grisar, and of the Protestants Köstlin, Kawerau, Berger, Harnack. His pronounced contradictions and antitheses render obvious the difficulty of contemplating the actual man on the pages of fair-minded historians of whatever creed. Of none could it be said more truthfully than of Luther, "Ich bin ein Mensch mit meinem Widerspruch." But to students of the history of human thought, phenomena like Luther, Ignatius of Loyola, George Fox, John Wesley, Cardinal Newman, furnish unending interest. One cannot lightly dismiss the ex-monk who inaugurated a movement beyond his own power of control, who caused the greatest schism in Western Christianity, comparable in importance only with the Great Schism of East and West, who led the revolt of the Northern spirit against that of the Mediterranean, who was pitted against the greatest Holy Roman emperor since Charlemagne with the slaughter of more Christians to his credit than all the Pagan Roman emperors. The mediaeval and the modern meet in him. In his ideas of hell, his belief in demonic influences and the awful activities of a personal Satan, in his inability to the end to substitute the love of God for the fear of God as Judge, in his theology of atonement, in his anti-intellectualism of faith against and superior to reason, in the realism of his Anti-Christ (ultimately identified, unfortunately, with the Pope), his anticipation of the end of the world (which he fixed for 1540), his appeal to objective authority (in his case the Bible), he looked toward the past. But Luther was also prophetic of a new outlook. Contrary to his own intention his protest developed into a revolution. His ideas proved more fertile than he could have anticipated. As his revolt arose out of the bitter experience of his own inner life and his inability to understand the serene religion of his friend and confessor, Staupitz, so a new momentum was given to experience as the surest means of attaining knowledge of God. By a strange trick of thought the reformer who held to the God of Duns Scotus and Occam as Supreme Will, and who maintained, therefore, that there is only one Will, that of God, and who seemed to glorify God at the expense of man, became the apostle of liberty. In his doctrine of justification by faith he laid a new responsibility on the human soul and became the prophet of that subjectivity of religion which was the necessary reaction against the regnant objectivity and collectivism—even in the over-emphasis and one-sidedness of that subjectivity which became the disease of Protestantism because of its neglect of the counterbalancing truth of Latin Christianity. "Hence," says Macchioro, "modern thought began, in reality, with him, and not with Erasmus or the others who were substantially more modern spirits than this intolerant and superstitious friar. What they and other contemporaries and predecessors of Luther lacked, the note which is the essence of the modern age, he had in a powerful degree—individualism. From Luther, and not from the others, originates the Kantian conception of religion as an ethic, quite distinct from philosophy, also the criticism to which the Königsberg philosopher subjected dogma and sacrament. And from Kant descends Hegel, who is almost immersed in the current of Lutheranism. The whole modern conception of religion as experience is linked up with the Lutheran conception. Martin Luther was therefore at once mediaeval and modern: mediaeval in intolerance, in fanaticism, in vulgarity; modern in liberty, in love of culture, in the rehabilitation of life in its sanity and vigour, and of a joyous and robust faith which consists not in an adhesion to a body of doctrines, but is a life of the spirit . . . Dead is his theology, but more vital than ever is the immense impulse which he imparted to the story of the human spirit, to the gradual and laborious apprehension of God."

Luther and his opponents, the Reformation and the Counter-Reformation, in their extreme and inadequate asseverations, in their successes and failures, yet each necessary moments in the unhasting but unresting evolution of a living religion, point to a future catholicity of Christianity in which authority and liberty shall consort, in which individualism and collectivism shall be mutually contributory so that the individual or group religious experience may be welcomed as an enrichment as also an expression of that of the whole; in which the "romanticist" Christian with his reverence for the past and his imitation of antiquity may grasp the hand of a modern brother with his forward-looking gaze and passion for creative experimentation; which without abating one iota on the moral repressions shall advance and prompt the moral expansions; a catholicity which shall combine and transcend the subjective and the objective types of a religion which has as its core the union of the divine and the human concerning which Dante prays so fervently in the close of his *Paradiso*. Neither a Latinised nor a Judaised Christianity is necessarily the last word in the living spiritual religion of Jesus.

—S. Angus.

THE PSYCHOLOGY OF RELIGION. By W. B. Selbie, M.A., D.D. Oxford University Press, 1924. Pp. 310.

The publication of a Series "for the use of Theological Students and of others who are anxious for wise and sober instruction on questions of Religion and Theology," by the Clarendon Press is a noteworthy event. This timely book by the Principal of Mansfield College, and Wilde Lecturer in Natural and Comparative Religion in the University of Oxford is the first published work of the Series. Dr. Selbie brings to his task a mind at once well furnished and judicial. He knows his subject; he is hospitable to new ideas; but he always keeps his head. Perhaps there is no subject at the present time which calls so urgently for "wise and sober" treatment as Psychology. Specialization must be combined with philosophical grasp and vision. The "New Psychology" may become a closed circle! Backgrounds are needed as well as foreground-detail. The abnormal must not be confused with conditions of healthy-mindedness, or we may all become abnormal. But Dr. Selbie's pulse is steady, and his vision is clear. He examines the subject from every point of view, and gives calm and reasoned pronouncements upon the most important issues. His material is "religious experience in all its vast variety," including "the ideas and theories to which it has given expression, especially if behaviour is to be regarded as a proper field for psychological investigation" (page 62). In the light of recent research, he considers the genetic aspects of religion, and the value which is to be attached to them. Speaking of the attempts that have been made to find "the roots and essence" of religion in individual processes—e.g., fear, self-preservation, wonder, curiosity, social and sexual instincts, he admits that these and other traits have "profoundly influenced the expression and development of the religious consciousness. But to make any one of them its exclusive or even paramount occasion is..to departmentalise human nature. The basis of religion is not to be found in any one faculty but in man's mind working as a whole" (page 41.) If religion is not a human instinct it is a tendency strong enough to "sublimate primitive instincts," e.g., fear and sex, and is "something *sui generis,* and therefore able to use them for its own high ends" (page 13.) A chapter on "The Unconscious in Religious Experience" introduces the reader to the debatable land of the "new Psychology." He traces the growth of the idea of the Unconscious through Hamilton, Myers, James, Bleuler, Bergson, Titchener, Ward, and Rivers, and then examines the theory of Freud. Dr. Selbie acknowledges the utility of the concept of the Unconscious in the light of the psychology of religion, but warns the student against regarding such an admission as equivalent to an "explanation" of the problems of experience. The Unconscious seems to be "lower," and not "higher," in a moral and spiritual sense—more primal and instinctive, and certainly less rational. Hence Sanday's Christological hypothesis does not seem to be sound, viz., that "the Unconscious" stood for the Divine Nature in the Person of Christ. The chapter on Cult and Worship brings a "potpourri" before the mind, including the evidences of "the herd instinct." The author says (p. 108) "The contention of certain sociological psychologists like Ames, King, Durkheim, and others, that religious cultus has its rise in the form of social life, and is the reflection of certain important group interests, can hardly now be maintained." The subject in its Theistic bearings is pursued in the chapters on Belief in God, the Individual, and Society. Interesting studies are given on Childhood and Adolescence, Conversion, Prayer, Sin and Repentance, Mysticism and Immortality; while the concluding chapter treats of Religion and The New Psychology. The theoretical and therapeutical aspects of Psycho-analysis are studied in relation to philosophy, psychology, and religion; and Dr. Selbie developes a very fair estimate of the somewhat exaggerated claims of the new tendencies, when pushed forward to the exclusion of accepted psychology and the claims of metaphysics, which must be the ultimate arbiter of many problems raised in the special sciences and pseudo-sciences.

The view-point of the author is not obtruded in the book, but the following truths are contended for in the course of the investigation.—(1) That religion is a deep-seated and universal tendency in human nature, involving man's whole being in some respect or other; (2) that it cannot be reduced to mere subjectivism, or its content to mere "projections" of consciousness; and (3) that the facts and theories of all branches of Psychology, whether "new" or old, including Psycho-analysis, Suggestionism, and theories of the Group-mind, must look to philosophy and experience for the determination of their validity, or otherwise; and connot be adequately treated by any discipline which falls short of a metaphysical (or meta-psychological) method and aim.

This work of Dr. Selbie's is an extremely valuable treatment of a subject that is intensely alive at the present time; and it is that will repay careful study by representatives of all schools of thought. One might wish for fewer quotations from the writers referred to by the author; but doubtless those are intended as hostages to absolute fairness, where so much is highly controversial; and again, one might desire a complete bibliography for this book of 300 pages, and not merely a few references at the end of each chapter. But these are slight criticisms on the form of a book which is conspicuous for its sanity and readableness, while being suitable as a text-book for advanced students and graduates.

—E. N. Merrington.

EXPERIENCE AND NATURE. By John Dewey. Open Court Publishing Company. Chicago. 1925. Pp. 443. Price 3 dollars.

In the first series of lectures under the Paul Carus foundation in America Professor Dewey, starting from the attitude of Pragmatic Empiricism, dissents from the older empiricisms which, pretending to be based upon experience, were always implicity selective. It is the whole of experience from which he starts, both *experienced* and *experiencing*. To the objection that this seems to leave experience without any meaning, he replies that for philosophy experience means method, not subject-matter. True empiricism is denotative a method of philosophy recognising "that to settle any discussion we must go to something pointed to, denoted, and find our answer in that thing." Philosophy were better without that much abused word Experience, but it is needed until philosophers "who are wont to start with highly simplified premisses" come finally to see "that the world which is lived, suffered and enjoyed as well as logically thought of has the last word in all human enquiries."

Starting from this all-embracing empiricism, Professor Dewey proceeds to cut away the presuppositions upon which many of the traditional problems of philosophy rest, problems which are indeed reduced by him to nothingness. Thus the epistemological problem vanishes. If to *have* an experience is to *know* it. The problem is inevitable, but to have is not necessarily to know: experience has simpler forms than knowing. Sense data, for example, are experiences *had*, are simply the unique qualities that they are, and empirically, therefore, neither physical nor psychical. But if to have is to know, then sweet, for example, cannot be simply "sweet," a quality given, but must be either (since these are our highest categories of classification under knowing) physical or psychical, and the unreal problem begins. The allied problem of the relation of sense-data to the object of physical science is solved when it is shown that we have here not two kinds of knowledge, but "two dimensions of experienced things, one that of having them, and the other that of knowing about them, so that we can again have them in more meaningful and secure ways."

The problem of body and mind vanishes if we remember that the distinction between the physical and mental is not empirically given, but is a reflective interpretation of experience. Thus we are told, in the chapter on Nature Life and Body-mind, that the idea that matter, life, and mind represent separate kinds of being is a doctrine that springs, as so many philosophic errors have sprung, from a substantiation of eventual functions. The distinction between the physical and the mental is simply a distinction corresponding to complexity of interaction among natural events, and in the earlier chapter on Existence, we are introduced to the strange conception that mind and matter are merely "different characters of natural events," matter expressing "their sequential order" and mind "the order of their meanings in their logical connections and dependencies."

Many things disappear at the hands of this destructive empiricism, or remain tarnished in quality. In nature, not only final causes, but efficient causes also are swept from the board: in mind, the Ego receives short shrift, and even the unique individual mind, beloved of philosophers since Descartes, is questioned. Thought itself, if I understand Professor Dewey aright, is merely the product of language, and language arises from that kind of interaction we call communication, which rests apparently on a material of mere physiological signs. How the need of communication arises without some germ of thought it is hard to understand, and it is strange to find a thinker like Professor Dewey going so far on the road to Behaviourism, as he does in the Chapter on Nature and Communication.

Reason, as we must expect, topples here from its higher estate to become instrumental merely. Reason, shall we say, is but the most complex fact of a natural world. We can understand man and nature only in interaction with each other, and reason is but the highest form of interaction. Without reason man is but a shuttlecock in the web of nature, but with its emergence man becomes able to direct this interaction, because under the light of reason causes can become means and effects consequences. "Man in nature is man subjected; nature in man, recognised and used, is intelligence and art."

Altogether this is an arresting book containing many new attitudes to traditional problems. There is much in it that will set both Idealists and Realists by the ears. And much that they will find formidable to answer. It is a pity, however, that Professor Dewey seems to be losing with advancing years his brighter touch. Is this the inevitable result of that much analysis that we name philosophy? If so, let every professional philosopher be compelled once in a while to call a halt and write a drama, or at the least learn a musical instrument.

—C. F. Salmond.

JOURNALS RECEIVED.

THE JOURNAL OF PHILOSOPHY. Ed. by Professors Woodbridge and Bush. Columbia University. Published fortnightly; four dollars per annum.

Vol. XXII. No. 6. March 12, 1925. Rivals and Substitutes for Reason (II): M. R. Cohen. Explanation, Mechanism and Teleology: C. J. Ducasse. No. 7. March 26. Logic of Intermediate Steps: H. L. Hollingsworth. Rivals and Substitutes for Reason: M. R. Cohen. No. 8. April 9. The Material World—Snark or Boojum?: H. C. Brown. No. 9. April 23. The Problem of Type in "Cultural Science Psychology": H. Kluever. Significance of the *Gestalt* Conception in Psychology: J. R.

Cantor. No. 10. May 7. J. E. Creighton: W. A. Hammond. J. E. Creighton as Writer and Editor: K. Gilbert. Essences and Universals: D. W. Prall. No. 11. May 21. Crossing the "Rubicon between Mechanism and Life": R. M. Ogden. Scientific Method and Moral Concepts: C. O. Weber.

PSYCHE. Edited by C. K. Ogden. Kegan Paul, etc., London. Quarterly. Price 5/-.

Vol. V. No. 4. April, 1925. Editorial: "The Eclectics." Recent Experiments in Telepathy. The Psychological Interest in General Practice: Dr. F. G. Crookshank. Time Number and Measurement: J. Von Uexküll. Why Times Flies: A. More. Religion and Psychology: Dr. W. Brown. The Relationships of the Neuroses: E. Miller. The Dematerialisation of Matter and Imagination: F. C. Constable. Child Thought: J. C. Wright. Symbolism in Verhaeren: E. Earles. Child Study in Paris: C. Nony. Psychology in the U.S.A.: A. A. Roback.

L'ANNÉE PSYCHOLOGIQUE. 24th year, 1923. F. Alcan, Paris. Price 40 francs.

Les problémes psychologiques de la perception du temps: H. Pieron. La théorie dynamique de la vision des couleurs: G. Forster. Les methodes non verbales d'examen mental: O. Degroly. Determinisme de l'emplacement des nids des Vespides: E. Rabaud. Les sensations de recul dams le tir: General Journée. Les tests individuels et les tests simultanés: O. Degroly. Recherches sur le dressage automatique: C. Bussard. La sensation tonale exige-t-elle plusieurs vibrations?: P. Kucharski. Notes and revues, etc.

PHILOSOPHISCHE BLÄTTER. Edited by Arnold Bölsche. R. Heise, Berlin.

No. 7. January, 1924. The ancient and the modern Logos: Paul Feldkeller. Medieval and modern epistemology: J. M. Verweyen.

SCHOOLING. Teachers' College Press. Sydney. Five issues yearly. 5/- per annum. Edited by A. Mackie and P. R. Cole.

No. 3. April, 1925. A Short Primary Course: A. Mackie. Training of Teachers in N.S.W.: S. H. Smith. Anglo-Saxon Education: P. R. Cole. Sydney Teachers' College Group, Scale III.: G. E. Phillips. The Sentence Structure of School Compositions: F. W. Hyland. The Literary Pageant: K. E. Kelly. No. 4. June, 1925. Editorial Notes: A. Mackie. Some Aspects of Danish Education: R. G. Cameron. Arithmetical Ability and Memory: G. E. Phillips. Intellectual Developments in the Age of Charlemagne: P. R. Cole. The Teaching of Poetry: Alice McCabe. Sentence Structure of Composition: Ena Rice. The Literary Pageant: K. G. Kelly. Peter Abelaid: P. R. Cole. Education under Macquarie: M. L. Lynch. No. 5. July, 1925. Editorial Notes: A. Mackie. Variations in Average General Ability of Classes in Metropolitan Schools: G. E. Phillips. Education in California: J. M. McDowall. Meaning of History: H. L. Harris. A Children's Library:

Mary Rivett. Music in Schools: T. Gallagher. Cost of Education in Great Britain, Australasia, and New York: A. Mackie and H. S. Wyndham. Education under Macquarie: M. L. Lynch.

RIVISTA DI FILOSOFIA NEO-SCOLASTICA. Università Cattolica del S. Cuore. Milan.

Vol. XVI. Nos. 5-6. Sept.-Dec. 1924. The Unity of the Christian World in the Middle Ages: A. Gemelli. The Mysticism of M. Molinos: F. Olgiati. St. Thomas and Latin Averroism: A. Masnovo. The Mass of Energy and the Negation of Matter: P. Rossi. The Spirit of Pedagogy: Casotti. (A defence of Church as against "lay" systems of instruction.) A New Epoch for Catholic Philosophy in Germany?: A. Hilckman. The Polemics of Idealism: G. Bontadini. Vol. XVII. Nos. 1-2. Jan.-April, 1925. The New Organisation of the Faculty of Philosophy in The University of the S. Heart: Editorial. Plato and Perennial Philosophy: P. Rotta. Modern Philosophy and Italian Neo-Scholasticism: F. Olgiati. Psychic Structures and Functions: A. Gemelli. Psychology of Willing and Basis of Morals: G. Zamboni. Immanence and Transcendence in History: S. Vismara.

INTERNATIONAL JOURNAL OF PSYCHO-ANALYSIS. Directed by S. Freud. Edited by Ernest Jones. Balliere, Tindall and Cox, London.

Vol. VI., Part 2, April 1925. Mother Right and the Sexual Ignorance of Savages: E. Jones. Notes on Oral Character Formation: E. Glover. The Psycho-Analytic Method of Observation: T. Schroeder. Some Unconscious Factors in the International Language Movement, with especial reference to Esperanto: J. C. Flügel. A Note on the Phallic Significance of the Tongue and of Speech: J. C. Flügel. Abstracts, Book Reviews, etc.

ARCHIVIO GENERALE DI NEUROLOGIA, PSICHIATRIA E PSICOANALISI. Founded by M. Levi Bianchini. Scientific Organ of the Provincial Asylum of Teramo. Giannini e Figli, Naples. Annual Subscription, 120 lire.

Vol. V. Nos. 3-4. La dégénérescence colloido-calcaire du cerveau: Urechia e Michalescu. Gli instinti nel sistema dei psichismi umani: M. L. Bianchini. Quelques considerations sur un cas d'encephalite lethargique: Urechia e Elakes. Su alcune critiche di autori Italiani in tema di Psicoanalisi: E. Weiss. Una varieta rara di distrofia lepomatosa: Fienarola. Vol. V. Nos. 1-2, March, 1925. La simbolistica nel sogno mistico e profano: M. L. Bianchini. Contributo sperimentale allo studio della substantia nigra normale e dei suoi rapporti con la corteccia cerebrale e con il corpo striato: A. Ferraro. Bibliografia.

THE MEDICAL JOURNAL OF AUSTRALIA. Sydney. Published weekly, 1/-.

THE LEGAL JOURNAL. Sydney. Published monthly. 10/6 per annum.

NOTES AND NEWS.

The nucleus of a Local Branch has been formed at Broken Hill, N.S.W., by Mr. C. B. Newling, B.A. This example might be followed in other centres. A few members of the Association meet fortnightly in each others' homes. One member reads a paper on an article in the Journal, followed by free and informal discussion.

At a meeting of the Sydney Local Branch of the Association, held at the University on June 16th, Mr. Raymond N. Kershaw, Rhodes Scholar, of Sydney University, and now of the Secretariat of the League of Nations, read a paper on "The League and International Ethics." On August 20th, Professor Angus, Ph.D., D.Litt., D.D., read a paper on The Mystery Religions of the Graeco-Roman World.

A local Branch of the Association has been formed at Wellington, N.Z. President, the Right Honourable Sir Robert Stout, K.C.M.G., P.C.,; Vice-Presidents, Dr. Eardley Fenwick, P. Fraser, M.P., and Professor T. A. Hunter; Hon. Sec. and Treasurer, Dr. Sutherland. At the opening meeting, the subject discussed was "Psychology and the World To-day." Papers were contributed by Dr. Eardley Fenwick, "Psychology and Medicine"; Professor J. S. Tennant, "Psychology and Education;" and Dr. Sutherland, "Psychology and Industry." The fee for membership was fixed at 12/-, which includes subscription to the Association and Journal. The new Branch starts with a membership of fifty.

The Auckland Branch of the Association has had several meetings at which original papers have been read, and articles in the Journal discussed. Mr. H. C. Becroft, M.A., Secretary of the Branch, has been appointed Lecturer in Psychology at the Auckland Training College.

The Senior Lectureship in Philosophy at Melbourne University (salary £500), will become vacant at the end of the year through the resignation of Dr. S. C. Lazarus.

Mr. K. S. Cunningham, M.A., Evening Lecturer in Philosophy, has gone to Columbia University to engage in post-graduate study in Psychology and Education.

Mr. A. R. Knight, who graduated at Sydney University, with First-class Honours in Philosophy, and was awarded the Wooley Travelling Scholarship in 1923, has graduated at Cambridge University with First-class Honours in Philosophy. Mr. Knight was recently elected to a Senior Scholarship at Trinity College, Cambridge.

Members of the Association and subscribers who fail to receive the Journal regularly, are requested to communicate with the Honorary Secretary, University of Sydney. Arrangements have been made with the printers of the Journal for the binding of the four numbers of Volume II. These should be sent to Syd. Day, Ltd., Parramatta Road, Sydney, along with the sum of 5/6. For this inclusive charge the bound volume will be sent to the owner within about a month after it has been received.

Wholly set up and printed in Australia by Syd. Day, Ltd., Parramatta Road.
Glebe, Sydney.